

THE
BRITISH JOURNAL
OF
CHILDREN'S DISEASES.

Vol. XV.

JANUARY—MARCH, 1918.

Nos. 169-171.

Original Articles.

INTERMITTENT FEVER FROM MENINGOCOCCAL
SEPTICÆMIA.*

By ARNOLD NETTER,

Membre de l'Académie de Médecine, Médecin de l'Hôpital Trousseau, Paris.

IN January and February, 1879, less than three months before his death, in two lectures published in the 'Lancet' on May the 3rd and May the 10th, 1879, Murchison made a study of intermittent fever and endeavoured to elucidate the characters by which the different varieties might be distinguished. Apart from malaria, Murchison mentioned eleven possible causes of intermittent fever, including syphilis, the febrile manifestations of which have given rise to several communications during the past and present year.

He was of opinion that his list was by no means complete, and had no doubt that other causes of intermittent fever would be discovered. Intermittent fever of meningococcal origin, which has formed the subject of several communications during the last few years, justifies Murchison's forecast. We have already mentioned the subject on several occasions, especially in a lecture published in 1914 in the 'Monde Médical,' and we think that we should dwell upon it in greater detail.

Intermittent fever of meningococcal origin, which yields so readily to serum treatment, as we shall see, is not a very frequent occurrence. We have, in fact, found it in only 5 out of 368 cases. It

* A paper read before the Société Médicale des Hôpitaux on October the 12th, 1917.

353
202
1918

has been more common in our private cases, viz. in 3 out of 90. This is no doubt due to the fact that children brought to hospital have received less careful attention in the initial stage. Our first four cases have already been reported with their temperature charts at the meetings of July the 28th, 1899, and December the 21st, 1908, and in the February number of the 'Monde Médical.'

We will now give a short account of our last case, in which I was called in consultation in June by Dr. Mignon, of Vesinet.

A boy, aged 15 years, who had always enjoyed good health, was seized with slight malaise from June the 2nd to June the 5th. On the evening of the 4th the temperature was 102.4° F. Dr. Mignon saw the child for the first time on the 5th and noted a dirty tongue and patches of erythema. He ordered a liquid diet and a purgative to be taken the following day.

On June the 7th the eruption assumed the type of erythema multiforme, in which the nodose element predominated and was most marked on the limbs. There were vague pains in the joints, which suggested rheumatism.

The following week the temperature rose to 104° F., with wide and rapid oscillations, the rises of temperature being associated with fresh eruptions of erythema. Low diet, aspirin, milk, and vegetable broths. An infective erythema was suggested. The oscillations became more marked, the morning temperature being normal or sub-normal.

The idea of an intermittent fever seemed all the more likely, as there was a hospital in the neighbourhood containing malarial patients and among them autochthonous cases of intermittent fever attributed to the bites of mosquitoes, which were remarkably numerous this summer.

Quinine was given without producing any effect. The erythema multiforme persisted, accompanied by a few petechiæ. There was no prostration and no nervous symptom was detected. The pulse rose from 80 to 90. The urine was normal and contained no albumin.

Examination of the blood showed no agglutination of typhoid or paratyphoid bacilli. From June the 25th to June the 30th improvement took place, and the temperature fell, but the erythema persisted.

In the night of June the 30th–July the 1st the child woke up suddenly at 2 p.m. with an intense headache which nothing would relieve. The headache lasted all the day of July the 1st–July the 2nd. On July the 2nd there was obstinate constipation, Kernig's

sign, dermographism, and vomiting. The left tibio-tarsal joint was swollen, and there were some petechiæ over the external malleolus. The diagnosis of meningitis appeared probable.

I was called in consultation on July the 3rd. The appearance of the child was certainly that of meningitis. Lumbar puncture gave issue to turbid fluid, and was immediately followed by injection of 30 c.c. of antimeningococcal serum (20 c.c. of serum B and 10 c.c. of serum A.) On the two following days the injections were repeated in the same doses.

On July the 6th only 25 c.c. were injected, consisting of serum B exclusively. It was found that the cultures of the meningococci obtained were agglutinated by the serum B.

After the first two injections the child complained of intense headache which was relieved by injections of morphia. After the second puncture there was no fresh eruption. After the fourth injection the temperature became normal, and only rose again on the 11th, at the time of a serum manifestation, which was, however, of only short duration. The headache disappeared after the fourth puncture. The child made a complete recovery.

It is thus clear that the clinical picture before the appearance of the meningeal phenomena was that of an irregular intermittent fever with attacks which were quotidian and sometimes tertian, the paroxysms occurring sometimes in the morning and sometimes in the evening. In the interval between the attacks the child very often had an entirely normal appearance, as was the case in two infants whose temperature charts appear in the 'Monde Médical,' and in the patients of Cëttinger, Marie, Joltrain, etc. The symptoms of intermittent fever were the onset with shivering, the termination by sweating, and the increase in the size of the spleen. Confusion, therefore, was very easy. Pains in the joints are common, but they are not infrequent in malarial attacks.

There is only one set of symptoms which has often been noted which should arouse suspicion, viz. the cutaneous phenomena. In one patient there were crops of erythema with a few petechiæ. In one of Marie's patients and in that of Chevrel and Bourdinière and in those of Salomon and Liebermeister there was erythema multiforme or erythema nodosum. In Lancelin's case there was purpura. In Cëttinger and Marie's first case, as in that of Barrel and Coulomb there were lenticular rose spots.

We have several times insisted on the frequency of these eruptions in meningococcal infections. It must, however, be admitted that they may be absent in other cases. They were found in only one of

my 5 cases, and were not mentioned in the cases of Bonnel and Joltrain.

In most of the patients the diagnosis was not made until after the appearance of the meningeal phenomenon, which was often very late, *e. g.* the 15th, 21st, and 25th days in four of my patients, the 26th, 37th, and 70th in those of Pierre-Louis Marie, the 28th and 40th days in Joltrain's case, and not till two months in Salomon's patient. The fever is generally very soon mastered by serum treatment. In the present case the disease was jugulated by four injections, and in two others by three and six injections respectively. The use of polyvalent serum is all the more indicated, as the meningococci are often atypical. There is, therefore, every reason for making a diagnosis as soon as possible. In the cases of Salomon, Liebermeister, Marie, Monziols and Loiseleur, and Chevrel, the pathogenic agent was revealed by a blood culture.

In other cases this method failed, and it is always indispensable for the specimen of blood to be taken at the time of a febrile attack. Other means of investigation should not be neglected, and among these we would recommend cultivation of the nasopharynx, which we practise as a routine measure.

Cultivation of the blood or of the nasopharynx, or, on the other hand, the investigation of the agglutination and of the precipito-reaction in the serum may be employed in those rare cases in which the meninges are not affected by the meningococcal infection.

In cases of meningitis, injection into the spinal canal has been generally employed. It is certainly the most efficacious method. Subcutaneous injection has been recognised to be inadequate.

Intravenous injection is more dangerous. We should be all the more unwilling to have recourse to it in subjects whose infection is of old standing at the time of their first intravenous injection, as this method has several times given rise to grave symptoms as in one of our cases and in those of Marie, Boidin and Lemierre, and Chevrel. In the last case in which the intravenous injection was made, the patient was in a state of anaphylaxis.

In several patients the symptoms occurred at the time of the first injection. The long duration of the infection had rendered the subject hypersensitive.

CONCLUSIONS.

Meningococcal infection may assume the clinical appearance of typical intermittent fever, quotidian or tertian.

The attacks often coincide in such cases with the appearance of

an eruption, such as erythema nodosum, erythema multiforme, or purpura. But these eruptions, which might arouse attention, are often absent.

In the majority of cases symptoms of cerebro-spinal meningitis succeed these febrile attacks, but they may not appear for one or two months or more. Meningitis may even be absent altogether.

The diagnosis must be made by bacteriological examination. In the absence of the results supplied by examination of the cerebro-spinal fluid, which can only be obtained at a late stage, blood cultures and cultures from the nasopharynx will supply valuable information. The intermittent attacks, like the other manifestations of the meningococcal infections, rapidly give way to serum treatment. Serotherapy may, indeed, cause an alarming reaction soon after the first injection. It is, therefore, more advisable to substitute intrathecal injection, which is less dangerous than the intravenous one, which is apparently the more logical method.

REFERENCES.

(1) MURCHISON.—“Clinical Lectures on the Cause of Intermitting of Paroxysmal Pyrexia and on the Differential Characters of its Several Varieties,” ‘The Lancet,’ 3-10 mai 1879.

(2) NETTER.—“Un cas de méningite cérébro-spinale prolongée. Bons effets des ponctions lombaires pratiquées à onze reprises. Modifications du liquide,” ‘Soc. méd. des Hôp.,’ 28 juillet 1899.

(3) *Id.*—“Traitement de la méningite cérébro-spinale suppurée. Bains chauds prolongés. Ponctions lombaires répétées. Collargol. Efficacité du sérum anti-méningococcique,” ‘Soc. méd. des Hôp.,’ 11 décembre 1908.

(4) *Id.*—“Les méningites cérébro-spinales frustes,” ‘Le Monde médical,’ 15 février 1914.

(5) MONZIOIS ET LOISELEUR.—“Deux cas de méningococcie sans méningite,” ‘Soc. méd. des Hôp.,’ 25 février 1910.

(6) CHEVREL ET BOURDINIÈRE.—“Septicémie méningococcique à caractère de fièvre intermittente,” ‘Soc. méd. des Hôp.,’ 29 juillet 1910.

(7) BARREL, COULOMB ET COUTON.—“Un cas de septicémie paraméningococcique traitée par le sérum antiparaméningococcique,” ‘Soc. méd. des Hôp.,’ 20 juin 1912.

(8) ETTINGER, PIERRE-LOUIS MARIE ET BARON.—“Un nouveau cas de septicémie à paraméningocoques avec épisodes méningés à répétition,” ‘Soc. méd. des Hôp.,’ 2 mai 1913.

(9) BONNEL ET JOLTRAIN.—“Méningites cérébro-spinales latentes,” ‘Soc. méd. des Hôp.,’ 21 janvier 1916.

(10) PIERRE-LOUIS MARIE.—“Deux cas de septicémie prolongée à type pseudo-palustre avec épisode méningé tardif dus à des germes voisins du méningocoque. Guérison par le sérum polyvalent antiméningococcique,” ‘Soc. méd. des Hôp.,’ 9 février 1917.

(11) LANCELIN.—“Méningococcémie à caractère de fièvre intermittente au déclin d’une méningite cérébro-spinale,” ‘Soc. méd. des Hôp.,’ 12 octobre 1917.

(12) SALOMON.—“Ueber Meningokokkenseptikämie,” ‘Berl. klin. Wochens.,’ 19 novembre 1902.

(13) LIEBERMEISTER.—“Meningokokkensepsis,” ‘Münch. med. Wochens.,’ 2 septembre 1908.

JUVENILE CONSUMPTION AND SCHOOL ATTENDANCE.

By W. C. RIVERS, M.R.C.S., D.P.H.,

Tuberculosis Officer, Barnsley District, West Riding, Yorks.

THERE are in connection with the subject of tuberculosis a number of observations which the few of real experience in the matter will all accept, whatever their other differences. For example, that trauma must be mentioned in the ætiology of nearly every, and that recidivism dogs the course of every, form of the disease; that there is no "drink or stink" which has not at some time or other been vaunted as a specific remedy for consumption, only to pass quickly into the limbo of the forgotten; that the temperature is an all-important guide to treatment, while physical examination of the lungs is hardly ever a guide at all; that, except in face of the obvious, there is nothing certain about the prognosis of phthisis except that the prophet will be wrong; that on occasion lung collapse therapy (even in its distant results) may be as effective and favourable as the tone in which a man quotes his own conversation—such things as these are instances of general propositions which are really as axiomatic as what we find in every text-book. I should like to propose an addition to their number. That is, that bating of course the acute disease of infantile years, what is actually responsible for the most part of juvenile phthisis is school attendance; not by way of facilitating infection, but from the strain it throws on juvenile constitutions.

The experience from which this little generalisation springs is chiefly the sight, again and again and again, of the certainty with which renewal of school attendance brings about renewal of symptoms, in other words, relapse; and to a less extent the receipt of a history of the same occurrence, or of illness dating from soon after school age. Let us have this experience, for what it is worth, in some detail, before going on to what is possible in the way of verification of the theory, and to arguments for and against it. There is no need to remind an audience of pædiatricians that juvenile phthisis is in every way of a much lighter and more favourable complexion than the adult form of the disease, as also that it is much more often "closed," sputum-less or positive-sputum-less, and so non-infective, as also that educational authorities are rightly anxious for children to miss school as little as may be. It is a question then of always having to make such notes in the case-sheets as these:

E. E—, excused from school in May ; tried school again in January ; poorly again in March.

A. E. D—, went to school at usual age, but soon got cough and blood-spitting, on account of which was kept away for a year. Returned, but was irregular in attendance for two years. At the end of that time was sent by the school medical officer to the dispensary for pulmonary tubercle.

L. D—, seen in the autumn and excused school until after the Whitsun holidays following. In May ill again and had to leave school again.

M. A—, excused school in October, until March, when she went back. In April already ill again, and again excused. In November the attendance officer began urging the mother for the child's return ; re-investigated the case and found that the child was not being made use of at home, but was following out proper treatment. Forbade child's return to school.

G. H—, excused school March, 1915. Disease became quite quiescent, and on January the 1st, 1916, child returned to school. In February cough worse, in May still worse, and child continually missing days. Excused school again. In September tried school half time only. In April, 1917, ill again, bad cough and a pleuritic rub ; excused again. In May again in good health, which she keeps until the early days of 1918, when failure of the milk supply and increasing shortage of food induce some slight return of symptoms, but not such a bad return as the several previous ones.

Indeed, this last case is one in which the patient, unusually resistant to chronic pulmonary tubercle even for a child, had a slight amount of disease ; and in instances of this kind it would often be possible, although of course most inadvisable, by just varying school days with holidays to induce in turn relapse and re-quiescence with a regularity almost analogous to that of an electric "make and break" commutator. Then as to histories. So-and-so "was the strongest boy in the county till he went to school." In another case : "I don't know what's the matter with the child. *She can't stand school.*" Of a third : "It's such a disappointment his going like this, he was always such a strong child." Again : "She's never at school for more than three weeks together, it always makes her ill." All these were quite young children who would have been no use at home. The charge against parents of keeping children at home ostensibly for health reasons but really to get work out of them is in my experience nearly always unjustified. The working

class mother has generally got her hands pretty full, and appreciates the relief of not having to look after some of her children. Practitioners not infrequently send children up as being ill and irregular at school. And where the history of a "pneumonia" is given, which doubtless represented the primary infection, such "pneumonia" is by no means always in infantile years; quite often it occurred when the child was at school. Inability to stand schooling may even give a clue to the tuberculous nature of the disease. Thus, L. T— came to the dispensary with bad impetigo of the scalp and very slight pulmonary signs, was diagnosed non-tuberculous, and in due course returned to school. In eight months' time she was back again, and on examination clear signs of tubercle of the left upper pulmonary lobe were found.

Lastly, a medical man in charge of an open-air school* tells me that the children's ability to stand ordinary school life seems to vary directly with the length of their stay at the special institution. After, say, six months there they can go six months or so at the regular school without breaking down; after a year, some may manage ordinary school attendance without breaking down at all; after eighteen months, more will manage—and so on.

So much for personal experience in this matter. But what support can personal experience find in the far more reliable general experience? Directly, very little, for text-books in their passages on juvenile phthisis seem to leave such a practical affair as school attendance quite out of mention. For an indirect test we must of course resort to published statistics. Now from 1900 to 1915 the Registrar-General's returns have always showed a greater phthisis mortality at ages 0–5 years than at ages 5–10 years, and also (except in 1915) than at ages 10–15 years. German statistics given by Cornet† give the same result. Since school attendance only becomes compulsory at five years old, this at first sight goes against the idea that school attendance has a good deal to do with juvenile phthisis. Such a deduction leaves out of count, however, the fact that juvenile, as distinguished from infantile, pulmonary tuberculosis is notoriously of a benign type. We know that tuberculosis of all kinds is very deadly to infants, that children resist

* Mention of open-air schools will suggest the query why all these recidivistic tuberculous children were not packed off to these places before they had time to show recidivism. The answer is that even in a well-provided area like the West Riding, open-air school accommodation (which to my knowledge was totally absent as late as 1913 elsewhere in one of the largest industrial regions in the country) is far from being adequate to the demands upon it.

† Cornet, 'Die Tuberkulose,' Wien, 1899.

consumption extraordinarily well, and that adults occupy a sort of mean between these two extremes. But the commonly quoted returns just mentioned deal only with deaths; they have nothing to do with illness merely, with the slight chronic consumption of children at school age that may persist for years. So that what is needed for a real test of our thesis is, as for so many other questions, figures relating not to mortality but to morbidity. Morbidity statistics, being rarely compiled, are of course hard to get. All that I have been able to find on the point in question is a three-year record of the medical polyclinic at Halle, communicated by its Prof. Nebelthau.* In the three years 1900–1903 this clinic was attended by 16,847 children, of whom 375 had consumption; and of the 375 fifty died of it. The age distribution of these three totals—16,847, 375, and 50—is as follows, the third column being obviously morbidity statistics, and the last mortality statistics :

Age in years.	Number of sick children.	Number consumptive. per cent.	Number dying of consumption.† per cent.
Under 1	3698	9 (0·2)	9 (0·2)
1—	2228	12 (0·5)	8 (0·3)
2—	1523	12 (0·7)	7 (0·4)
3—	1309	13 (1·0)	5 (0·3)
4—	1192	22 (1·8)	6 (0·5)
5—	800	13 (1·6)	3 (0·3)
6—	954	17 (1·7)	2 (0·2)
7—	851	20 (2·3)	3 (0·3)
8—	727	21 (2·8)	—
9—	562	24 (4·2)	2 (0·3)
10—	678	34 (5·1)	1 (0·1)
11—	605	36 (5·9)	—
12—	797	47 (5·9)	—
13—	597	55 (9·2)	1 (0·1)
14—	326	40 (12·3)	3 (0·9)
	16,847	375	50

Now, taking the last column first, these *mortality* statistics agree very well with the much larger and more reliable (as being calculated on the national population of each particular age instead of on a

* Nebelthau, "Phthisis der Kinder," art. in Schröder u. Blumenfeld's 'Handbuch der Therapie der chronischen Lungenschwindsucht,' Leipzig, 1904.

† In all save three cases verified by post-mortem examination.

population of hospital patients) ones of the British Registrar-General. The Registrar-General's figures gave proportionally more deaths from phthisis under school age than in later years of childhood. So do the Halle statistics, for 35 out of the 50 deaths occurred at ages under five. But the *morbidity* statistics tell a very different tale, the proportion of children with consumption being much greater at than below school age. This obvious opposition, which Nebelthau himself points out, between the "lethalität" and the "mortalität" of the malady under notice, this broad result (in statistics it is only the professional mathematician who can look at anything else, and he only with great caution) does, it is claimed, in spite of the fallacies unavoidably involved, somewhat strengthen the case put forward in this paper.

Tuberculosis being a notifiable disease, morbidity statistics can be obtained by looking up notifications. During the last two and a half years the practitioners in my district notified 104 cases of pulmonary tuberculosis in subjects under 15 years of age (14 years is the latest age for ordinary school attendance). The age distribution of the 104 is as follows :

Under 1 year	3	8-	17
1-	6	9-	13
2-	5	10-	11
3-	4	11-	3
4-	4	12-	10
5-	4	13-	6
6-	6	14-	4
7-	8		—

104

These morbidity figures, like Nebelthau's, show much more phthisis at, than under, school age, especially when it is remembered that there are naturally many more children living at early ages than at later ones; in other words, that the available tuberculisable population is larger the younger the age taken.

Of course, there is the fallacy that the longer a human being lives in the world, the more chances of tuberculous infection he runs; but, for what they are worth, these figures certainly do not show a steady rise in morbidity with age.

Another objection might be that the more acute disease of infantile years is harder to recognise. It is doubtless the case that in infants acute tuberculous pulmonary disease is sometimes diagnosed as capillary bronchitis or simple broncho-pneumonia. Still, such acute

pulmonary tubercle in infants often ends with the picture of tuberculous meningitis and general tuberculosis. Now the notifications in my district contain for the two-and-a-half-year period already mentioned, 20 notifications of tuberculous meningitis and general tuberculosis, and the age distribution of these 20 cases is as below :

Under 1 year	2	8—	3
1—	3	9—	—
2—	—	10—	2
3—	—	11—	—
4—	1	12—	1
5—	3	13—	1
6—	1	14—	—
7—	3		—
			20

The conclusion from which figures is that tuberculous meningitis and general tuberculosis seem to be diseases of school age too.

Lastly, in order to check the possible fallacy that the excess of consumption of school age might be only apparent, and due to extra opportunities of diagnosis at school age, because of school medical inspection, I have taken 96 otherwise unselected cases where the child was sent to the dispensary not by the school medical officer, but by the general practitioner. Again they show excess at school age :

Under 1 year	1	8—	10
1—	1	9—	12
2—	2	10—	15
3—	2	11—	10
4—	4	12—	9
5—	9	13—	8
6—	5	14—	6
7—	2		—
			96

* * * *

If school predisposes the scholars to consumption, how does it do it? Not by facilitating infection, obviously, because the relapses described so frequently above occur much too quickly for that. It must predispose as so many other phthisis-favouring factors predispose, namely by lowering the general health. The general health may be lowered in various ways, and the first way that suggests itself, in connection with education, is nervous strain.

This probably counts, but I have found it prominent only in two cases. In one, on two occasions, as soon as the child knew that its return to school was fixed for a future date, it began to lose weight every week. The mother stated that it used to worry a great deal over home preparation of next day's lessons. In the other, a boy did better at home than at the open-air school. Nervous strain cannot be a strong influence, because nowadays children like going to school, will even, when sick, play truant from home to get there. That, by the way, is a change—the disappearance of the “creeping like snail unwillingly”—for which educational authorities have not had enough credit. I think the active factors must be the indoor confinement (teachers in lower-class schools are rather subject to consumption) and the restraint. For what stock-breeders regard as the first essential in the rearing of the young of every domestic species is freedom in the open air. Now, during the holidays, even in winter, the working-class child runs straight out into the streets and stops there, playing with his fellows, until summoned in to a meal. There are disadvantages, of course—the dust in summer, the motor-cars, the unedifying sights; but, after all, he is in an analogous position to the puppy at “walk” (which means that it walks where it likes) or the lamb in the fields. Moreover, the younger the child, or the foal, or the puppy, or the chicken, the more important this freedom is—which is why one reads of the proposals for a great extension of infant schools with an apprehension that seems likely to be justified unless they are run on the most easy-going plan possible, and as altogether open-air institutions. Quite likely playing in the streets is the very making, the very saving, of the constitution of the proletariat's rising generation.

To recapitulate, the child's relapse on leaving home for school again seems comparable with the adult's relapse on leaving the sanatorium for his former daily work. In the latter case it was certainly environment which helped to break down his resistance to tubercle; in the former case it was, in all probability, environment too. When educationists speak of the ravages of tuberculosis and of deterioration in national physique, and quote the figures of school medical officers, I am reminded of the hackneyed but irreplaceable image of the monster of Frankenstein. Nevertheless, human culture has, of course, strong claims. It might be worth while seeing how far it is possible to introduce into council and borough schools real open-air conditions, to make of them something like an ancient academy. The experience of the ‘Waldschülen’ on the Continent and at places like Bostal Wood would be a useful guide.

HÆMANGIECTATIC HYPERTROPHY OF LIMBS—CONGENITAL PHLEBARTERIECTASIS AND SO-CALLED CONGENITAL VARICOSE VEINS.

By F. PARKES WEBER, M.A., M.D., F.R.C.P.

THERE is a kind of congenital or developmental hypertrophy and dilatation of arterial and venous trunks, especially those of one of the upper limbs—a tumour-like hæmangiomatous overgrowth in the vascular system, which may be, I think, roughly compared to conditions of plexiform (also called vermicular or cylindrical) neuroma (German, “Rankenneurom”)—one kind of “elephantiasis nervorum”—in the nervous system. Both the arteries and the veins of an extremity may be involved, and sometimes the communication between the arterial channels and the venous channels may be so free that a definite kind of thrill or pulsation, rhythmical with the heart’s contractions, is transmitted to the veins, as in cases of arterio-venous anastomosis of traumatic origin. The condition is best termed “congenital or developmental phlebarteriectasis,” and in its most typical forms is seen confined to one of the upper or lower extremities, but cirroid aneurysms and plexiform hæmangiomata (plexiform, racemose, or anastomotic aneurysms—German, “Rankenangiom”), as met with about the scalp and face, are probably sometimes of the same nature.

When (as in Bockenheimer’s case—see further on) in one of the extremities the phlebarteriectasis is almost confined to the veins (congenital or developmental “phlebectasis”), *i. e.* when the arteries are only slightly affected in comparison with the veins, we get an example of one kind of the rare so-called “congenital varicose veins.”

Phlebarteriectasis may be associated with ordinary kinds of capillary or venous angiomas, just as in some cases of von Recklinghausen’s disease (neurofibromatosis) plexiform neuromata may be associated with ordinary neurofibromata of the skin and subcutaneous tissue.

An extremity affected by congenital or developmental phlebarteriectasis is practically always longer than its fellow, and this increase in size of the limb has sometimes been spoken of as gigantism or giant-growth. But in cases of typical true gigantism or giant-growth (as met with especially in one or two fingers or toes) the hypertrophy is much greater, and the blood-vessels are not specially involved; that is to say, not more than the other tissues

of the hypertrophied part. For the hypertrophy of a limb connected with congenital or developmental phlebarteriectasis I now prefer the term "angiectatic or hæmangiectatic hypertrophy."

Cases of this kind of hypertrophy of limbs have been described under various headings, and they should be especially differentiated from cases of the type of hypertrophy met with in hemihypertrophy. The latter type may, I believe, be limited to one of the four limbs, or sometimes the lower limb on one side of the body may be affected together with the upper limb on the other side (so-called "crossed hemihypertrophy"). Hemihypertrophy is not rarely associated with the presence of ordinary kinds of hæmangiomas, but is not associated with typical phlebarteriectasis; that is to say, it is not associated with excessive, congenital or developmental hypertrophy and dilatation of the arterial and venous trunks in the affected part.

From what is known as congenital (or early developmental) trophœdema or "trophic œdema" of extremities (H. Meige, etc.), which sometimes runs in families, hæmangiectatic hypertrophy of limbs may be distinguished by the absence in the former of the vascular abnormalities associated with the latter condition, and likewise by the absence in the former of actual increase in the length of the bones of the affected limbs (1).

Amongst examples of congenital or developmental phlebarteriectasis, with hæmangiectatic hypertrophy of limbs, I shall first allude to Sir Thomas Smith's case, which he described in 1882, as one of "Angiectasis of the Hands and Fingers" (2). The patient was a female, aged 25 years. The affected hand was much larger than its fellow, and its temperature higher. The subcutaneous tissue was occupied by dilated and tortuous veins. The arteries of the fingers, hand, and forearm were greatly enlarged and somewhat tortuous. When the hand was lightly grasped a purring thrill could be felt. According to the mother, the hand seemed normal till the patient was one and a half years old.

H. Braun (3) and his pupil Læwen (4) have contributed valuable papers (1902 and 1903) on the subject. The latter explains the condition of general diffuse phlebarteriectasis as a spontaneous or idiopathic, progressive dilatation of the blood-vessels of the affected portion of the body, the dilatation involving the arteries, capillaries, and veins of the part; he thinks, however, that the process is not associated with any actual new formation of blood-vessels. Læwen gives a very detailed account of the case demonstrated by H. Braun, in November, 1901, before the Medical Society of Leipzig. The

patient was a man, aged 43 years, whose right upper extremity had been more or less affected by the phlebarteriectasis from childhood, and the case was a typical one. Læwen has carefully reviewed and classified earlier cases described by Letenneur (1859) (5), Krause (1862) (6), Nicoladoni (two cases, 1875 and 1877) (7), A. Obalinsky and T. Browicz (1875) (8), and Fischer (1880) (9). It was Karl Otto Weber (10) who first separated off the group of cases, which he called "Genuine Diffuse Phlebarteriectasis," and in which there is not necessarily any abnormal arterio-venous anastomosis present, from the well-known traumatic cases of varicose aneurysm connected with abnormal arterio-venous anastomosis. In phlebarteriectasis, he said, the affected extremity was generally an upper not a lower one.

Philipp Bockenheimer (11), in 1907, carefully described an example of genuine diffuse *phlebectasis* (as opposed to *phlebarteriectasis*) of the whole left upper extremity. The course of the arteries was normal, and there was no abnormal communication to be discovered between arteries and veins. Examination of the arteries showed only slight sclerotic changes. The presence of an ascending pulse in the veins was explained as due to extreme dilatation of the capillaries connecting the arteries with the veins. The humerus of the affected (left) side was longer by one centimetre than that of the normal (right) side, and Bockenheimer compared this increased bony growth to the thickening of bones sometimes met with in cases of chronic valvular diseases of the heart.

Ebstein (12) has met with three cases of phlebarteriectasis. The first involved diffusely the whole left upper limb of a man, aged 24 years, and that extremity was $5\frac{1}{2}$ cm. longer than its fellow of the right side. The second case was that of a girl, aged 14 years, whose right forearm was 3 cm. longer than her left forearm. The third case was that of a man, aged 49 years. His left upper extremity, well shown in the photograph figured in Ebstein's account, felt decidedly warmer than the right upper extremity, and was an excellent example of phlebarteriectasis. The left forearm was 2 cm. longer than the right forearm. There was no evidence of any cardiac disease or abnormality. Ebstein speaks of these three cases as being the ninth, tenth, and eleventh described in the literature of the subject. He regards the condition as mostly congenital, and thinks that (as K. O. Weber pointed out) one of the upper extremities is more often affected than one of the lower extremities.

A special kind of *congenital varicose veins in extremities* may possibly be due to congenital obstruction in the main venous trunks of the affected limbs. Pierre Lereboullet (13) and Louis Petit, at the

Société Médicale des Hôpitaux de Paris (February the 7th, 1914), demonstrated a case of the kind, namely, that of a man, aged 52 years, with congenital varicose veins of the left upper extremity. The consequent progressive swelling and deformity was associated with a fragility of the bone, evidenced by an ununited fracture of the forearm. L. H. Petit (14), who is referred to by the above-mentioned writers, collected together in 1880 various examples of congenital varicose veins of the arms, possibly due to congenital obstruction in the subclavian vein. J. Brau-Tapie (15), in 1914, collected about a dozen cases of congenital varicose veins of the lower extremities, in some of which capillary angiomas were likewise present. An example of congenital varicose veins of the right lower extremity in a man, aged 38 years, was figured in 1914 by H. Simon (16). The case of congenital "elephantiasis" of the right arm in a child (17), described and figured by C. T. Dent in 1910, might have been due to congenital obstruction in the main venous channel of the affected limb, or possibly it was a genuine example of congenital phlebarteriectasis; but the condition seems to have been associated with extensive lymphangiectasis and with cavernous angioma.

The following cases may represent *lesser forms of true phlebarteriectasis*. At the Society for the Study of Disease in Children C. O. Hawthorne (18), in 1902, showed a boy, aged 10 years, with hypertrophy of the right lower limb, which was 3 cm. longer than its fellow. The skin of the right foot and of the right leg was unduly warm, the veins were prominent, and the arteries both in front of and behind the ankle-joint were apparently dilated. On the dorsum of the foot were certain patches which gave rise to some discussion, but which in my opinion were hæmangiomatous, or partly lymphangiomatous. At the same Society, in the same year, A. B. Roxburgh (19), showed a female child, aged 5 years, with varicose veins of the left lower extremity and a large cavernous angioma on the outer side of the left knee. There was slight alteration in the length and shape of the tibia on the affected side. At the Clinical Society of London, in February, 1903, T. H. Kellock (20), showed a female child, aged 8 years, with a varicose condition of the right internal saphenous vein; the right leg was rather more than 1 cm. longer than the left.

About 1907 I saw a case of a somewhat different class. The patient was a child, aged 12 weeks, with a condition of diffuse superficial cutaneous angioma involving nearly all the left side of the body and the left limbs, and most of the head. The left upper

and lower limbs were decidedly larger in circumference than the right ones, but (as yet) there was no obvious difference in length between the corresponding long bones of the two sides (21). With this case may be compared one described by J. Fletcher Little (in 1893) of a girl, aged 15 years, who had been born with a condition of diffuse superficial cutaneous angioma, involving nearly the whole of the right half of the body. The bones of the right extremities were longer than those of the left, the right leg measuring about 5 cm. in length more than its fellow (22). The increased size of limbs associated with the angiomatous conditions in these last two cases doubtless borders on the class of "angio-elephantiasis," as described long ago by Virchow and Hebra.

REFERENCES.

- (1) WEBER, F. PARKES.—"Hæmangiectatic Hypertrophies of the Foot and Lower Extremity, Congenital or Acquired," 'Med. Press,' London, 1908, cxxxvi, p. 261.
- (2) SMITH, SIR THOMAS.—'Trans. Clin. Soc. Lond.,' 1882, xv, p. 198.
- (3) BRAUN, H.—"Phlebarteriektasie der rechten oberen Extremität," at the Medical Society of Leipzig, report in the 'Muench. med. Wochenschr.,' 1902, xlix, p. 163.
- (4) LÄWEN.—"Ueber die genuine diffuse Phlebarteriektasie an der oberen Extremität," 'Deut. Zeitschr. für Chir.,' Leipzig, 1903, lxxviii, pp. 364-390.
- (5) LETENNEUR.—'Gaz. des Hôp.,' Paris, 1859, p. 122.
- (6) KRAUSE.—"Traumatische Angiektasie des linken Armes," 'Archiv für klin. Chirurgie,' 1862, ii, p. 142.
- (7) NICOLADONI.—'Arch. f. klin. Chir.,' 1875, xviii, p. 252; and 1877, xx, p. 146.
- (8) OBALINSKY, A., and BROWICZ, T.—"Zitzungsber. d. Acad. d. Wiss. Krakau," abstract in the 'Centralblatt für Chirurgie,' 1875.
- (9) FISCHER.—'Deut. Zeitschr. für Chir.,' Leipzig, 1880, xii, p. 29.
- (10) WEBER, K. O.—Article in the 'Handbuch der allg. und spez. Chir.' (Pitha and Billroth), vol. ii, Division ii, Part i, p. 158.
- (11) BOCKENHEIMER, P.—"Ueber die genuine diffuse Phlebektasie der oberen Extremität," 'Festschrift f. G. E. von Rindfleisch,' Leipzig, 1907, pp. 311-338.
- (12) EBSTEIN.—'Festschrift f. von Strümpell,' 'Deut. Zeitschr. f. Nervenheilk,' Leipzig, 1913, xlvii and xlviii, pp. 67-73; also "Ueber Phlebarteriektasie," 'Med. Gesellschaft zu Leipzig,' October the 23rd, 1917, report in 'Muench. med. Wochenschr.,' 1918, lxxv, p. 28.
- (13) LEREBoullet, P., and PETIT, L.—'Bull. et Mém. Soc. Méd. des Hôpitaux de Paris,' 1914, 3 sér., cxxxvii, p. 231.
- (14) PETIT, L. H.—'Union Médicale,' Paris, 1880, 3 sér., xxix, pp. 316, etc.
- (15) BRAU-TAPIE, J.—'Arch. gén. de chir.,' Paris, 1914, viii, pp. 26, 38.
- (16) SIMON, H.—At the Breslauer chirurg. Gesellschaft, May the 14th, 1914, report in 'Berliner klin. Wochenschr.,' 1914, li, p. 1199.
- (17) DENT, C. T.—'Proc. Roy. Soc. Med.,' Sect. Stud. Dis. Child, 1911, iv, p. 24.
- (18) HAWTHORNE, C. O.—'Rep. Soc. Stud. Dis. Child.,' London, 1902, ii, p. 114; and 1905, v, p. 1.
- (19) ROXBURGH, A. B.—'Ibid.,' 1902, ii, p. 222.
- (20) KELLOCK, T. H.—'Trans. Clin. Soc. Lond.,' 1903, cxxxvi, p. 254.
- (21) WEBER, F. PARKES.—"Angioma-Formation in Connection with Hypertrophy of Limbs and Hemi-hypertrophy," 'Brit. Journ. Derm.,' Lond., 1907, xix, p. 231.
- (22) LITTLE, J. FLETCHER.—'Trans. Clin. Soc. Lond.,' 1893, xxvi, p. 243.

TWO CASES OF PNEUMOCOCCAL MENINGITIS.*

By Mme. G. PANAYOTABON,

Alexandria.

WE thought that it would be of interest to describe these two cases of pneumococcal meningitis, and also the cultural and biological characters of the diplococcus isolated from the cerebro-spinal fluid, in view of the rarity of cases due to this infective agent.

CASE 1.—A girl, aged 10 years, was admitted on December the 21st, 1916, to the Hospital of the Greek Community at Alexandria, under the care of Dr. Isamis. About a year previously, on arrival from her native Cyprus with her relatives, she was treated with two other children of the same family for malaria at the polyclinic of the same hospital and had been cured by Dr. Rallis.

Two days before her admission to hospital, according to her mother's account, the child was suddenly seized with slight shivering and vomiting. She complained of a severe headache and seemed extremely prostrated. She was very constipated. On the third day her high fever and the gravity of her general condition compelled her parents to take her to hospital. When we saw her she was plunged in a sort of torpor, and did not answer any of the questions put to her, but was constantly whining and lay in the gun-hammer position. The head was slightly retracted and resisted any attempt to straighten it. There was a little opisthotonos and cutaneous hyperæsthesia. Kernig's sign was positive. The vomiting had ceased, but the constipation persisted. Pulse, 128. Temperature, 103.2° F. Lumbar puncture, which was performed by Dr. Afentoulis, gave issue to a turbid fluid with a purulent deposit consisting of 95 per cent. of polymorphonuclears. On microscopical examination we found extra- and intra-cellular diplococci; 20 c.c. of anti-meningococcal serum were injected.

The following day the temperature was 103.4° F., and her pulse 132. The muscles of the back and nuchal region were in a state of contracture.

The child was constantly complaining and was very restless. In the evening, however, the temperature fell to 101.2° F., and to 98.2° F. on the following morning, the pulse keeping below 130. Examination of the eyes showed strabismus, mydriasis, and considerable diminution of the pupillary reflexes.

* A paper read before the Société Médicale des Hôpitaux de Paris on October the 12th, 1917.

A fresh lumbar puncture was made and another 20 c.c. of serum were injected.

The two injections remained without any effect, the thermometer registering 103.8° F. and the pulse 132. The general condition grew worse every hour and the patient died on the fourth day of her admission to the clinic, in spite of another drop of the temperature to 101.2° F., the pulse remaining at 132. Culture of the pus on Loeffler's serum showed diplococci staining by Gram, the characters of which we shall describe below.

CASE 2.—The sister of the above, aged 7 years, was admitted one evening to hospital in an unconscious state. Temperature 102.6° F., pulse 125, thready, compressible, and irregular. Nuchal rigidity and stiffness of the vertebral column. The muscles of the lower limbs were in a state of contracture. Kernig's sign positive. Examination of the eyes showed contracture of the right superior rectus, which kept the eyeball directed upwards, marked mydriasis, and a loss of reaction of the pupils to light. Lumbar puncture gave issue to a turbid fluid with a purulent deposit. Microscopical examination showed 98 per cent. of polymorphonuclears and very numerous diplococci, a large number of which were intracellular. One would almost have thought that the fluid contained a culture of diplococci. The morphological appearance of the diplococcus exactly resembled that of the previous case. An injection of 20 c.c. of antimeningococcal serum was given, but the child died in the night.

These two cases present the following noteworthy features :

- (1) The gravity of the clinical form caused by the pathogenic agent.
- (2) The two cases occurring in the same family within the space of a few days (epidemic focus).
- (3) The absolute inefficacy of antimeningococcal serum.
- (4) The absence of carriers among the other members of the family examined by us.

The mother told us that the elder girl was always running about the streets in the very poor and dirty native quarter where they were living, and that there had been a fatal case of cerebro-spinal meningitis in a native girl living behind their house. We could not discover whether this case of meningitis was due to the same micro-organism as our two cases.

Characters of the diplococcus isolated from the cerebro-spinal fluid.

—The diplococcus was easily stained by aniline dyes, and was stained by Gram. Cultivation on Loeffler's coagulated serum showed

a very thin layer of growth which was hardly visible, and at first sight one would have been inclined to say that there was no growth at all. The isolated colonies were small, hyaline, not prominent, and resembled drops of dew. Cultivation on Loeffler's serum, to which human blood had been added, gave a more abundant culture. On microscopical examination of these cultures we found small cocci elongated in the shape of a candle-flame in groups of two, forming diplococci facing each other by their pointed ends. Several of them were surrounded by a thick gelatinous zone, forming a clear oval mark on the pink ground-work of the preparation. This was the negative of the capsule. The following cultures on Loeffler's serum showed cocci in the form of diplococci without capsules, but still lancet-shaped.

Cultivation on *young rabbits' serum* brought into view again very distinctly the capsule of the diplococcus.

On broth, the culture hardly made the fluid turbid, and formed a small deposit after two or three days' incubation.

Broth containing rabbits' serum yielded a more abundant culture.

In liquid serum the culture had the same characters as in broth.

On agar-agar there was no growth.

Bile.—Two-tenths of ox bile in 3 c.c. of a twenty-four hours' broth culture dissolved the diplococcus in twenty minutes; direct examination and culture did not show the presence of any micro-organisms. Bile on which the diplococcus was grown became clear in ten minutes. In Hiss's medium it caused fermentation of inulin.

Sugars.—In litmus peptone water with sugars it caused fermentation of glucose, lactose, saccharose, and maltose.

Injection into mouse.—Subcutaneous injection killed the mouse in three days.

Injection into rabbit.—Subcutaneous injection of a twenty-four hours' culture into a rabbit's ear caused œdema of the ear in twenty-four hours. This œdema soon invaded the whole head, and especially the soft parts of the lower jaw. The animal died in a cachectic state some days later.

The fluid of the œdematous region in the ear contained numerous capsulated diplococci from which pure cultures were obtained. The heart-blood of the dead rabbit grown on the serum of a young rabbit showed a pure culture of capsulated diplococci.

All these characters prove that the pathogenic micro-organism in both these cases was the pneumococcus.

The presence of two cases of pneumococcal meningitis in the same family (in spite of the rarity of meningitis due to this pathogenic

agent), the absence of carriers among other members of the family, the severity of the cases, and the absolute failure of antimeningococcal serum, appeared to us to be sufficient justification for recording these cases.

CLINICAL NOTES ON MEGACOLON.

By CHARLES GREENE CUMSTON, B.S., M.D.,

Privat docent at the University of Geneva; Honorary Member of the Surgical Society of Belgium, etc.

Geneva, Switzerland.

IN the brief remarks that are to follow on the subject of megacolon, I would say that no reference will be made to this pathological process in adults, and that the pathogenic theories so far offered will not be discussed, as they are quite contradictory, and have thrown little, if any, light on the subject. However, from the pathological viewpoint the process may be defined as an enormous dilatation of the colon, with elongation of the large intestine and hypertrophy of its wall. The Italian school, Concetti* in particular, has given much study to the histological changes occurring in megacolon, and at present they may be considered as consisting of a total hypertrophy of the walls of the gut, disappearance of the epithelium, a diffuse inflammatory infiltration of the submucous and muscular layers and a considerable hypertrophy of the intestinal muscle, especially notable in the circular fibres.

At operation or autopsy, what strikes one most is the extraordinary size of the colon, which often fills the abdominal cavity. The site of this dilatation is rather variable; the ectasis may involve the entire colon or only one of its segments. The contents of the dilated gut are composed of fæces and may be in such quantity as to form veritable tumours. In a case recorded by Formad,† the colon harboured forty-seven pounds of stercoral matter.

The older writers on the subject maintained that the walls of the dilated colon were very thin; but in the light of our present knowledge, we know that such cases were in reality instances of microcolon which had undergone passive dilatation.

* Concetti, 'Arch. f. Kinderheilk.,' 1899, xxvii, p. 319.

† 'Univ. Med. Mag.,' 1892, iv, p. 625.

When the gut is incised the mucosa is found highly congested, its folds are effaced or flattened down, while not infrequently numerous ulcerations are to be seen.

In the newly born the process may manifest itself at once by retention of the meconium, or at a somewhat later date by obstinate constipation with, at the same time, an increase in the size of the abdomen; but I would point out that the commencement of the condition may be late and insidious in its symptomatic manifestations. Two clinical signs dominate the symptomatic picture of megacolon, namely, *obstinate constipation* and *abdominal distension*, while the other symptoms result merely from changes arising in these two signs or from the development of some complication.

The constipation, which often makes itself evident in early infancy, may ultimately result in the acute phenomena of intestinal occlusion. It pursues a progressive increase, but it is interrupted by copious foetid diarrhoeal discharges which momentarily empty the gut, or at least partially.

The evacuation of intestinal gases is frequent, the flatus being remarkable from its extreme foetidity, quantity, and the violence of emission, the act being usually involuntary.

Vomiting is mentioned in about 33 per cent. of the reported cases in no way related to attacks of acute obstruction. The nature of the pain complained of varies, but usually it is vague, the patient having more the sensation of weight in the abdomen than real pain. When the intestinal contents are not voided for some days, or if an attack of occlusion is imminent, the pain may become intense.

A quite common symptom in children is tetany, which accompanies the evacuation of the loose, watery *débâcles*. The paroxysms of tetany are unquestionably the result of an intoxication due to intestinal putrefaction.

The general health of the patient may be seemingly good, but in most instances general symptoms make their appearance, they being due to a reaction on the part of the organism. At first there is more or less anorexia, but after a complete intestinal *débâcle* the appetite returns, though it is of short duration.

The little patient is pale, thin, and without strength. At the time of the paroxysms of occlusion the face is pinched, ashen in hue, the extremities cold and cyanotic. Some writers have referred to psychic disturbances undoubtedly due to stercoræmic intoxication.

Cardiac weakness, frequent palpitation, oliguria, rarely a rise in temperature, but more commonly hypothermia, complete the general symptomatology of megacolon. Fever is hardly ever met with

until the complete development of the process, and is then frequently caused by some complication.

The grand *finale* is made evident by an extreme cachexia, short, rapid respiration, small pulse and cold, clammy extremities, the scene ending in coma.

The most important sign offered by physical examination of cases of megacolon is the abdominal distension. This symptom strikes one at the first glance at the patient. The aspect of the belly is characteristic, being globous and markedly prominent. The skin is smooth and shiny, with a well-developed venous circulation which may be readily detected under the skin.

Upon direct examination of the abdomen exaggerated peristaltic movements are clearly seen under the abdominal parietes. They may be general throughout the abdomen, or only occur over a limited area and always at the same spot. Although sometimes devoid of pain, the peristalsis is more prone to set up violent suffering, especially marked during prolonged attacks of constipation.

Abdominal palpation is not apt to give any particular diagnostic data, but percussion will give a generalised tympanitic note, frequently even excluding hepatic dulness. Not uncommonly an area of dulness will be found, indicating an accumulation of fæces.

These fæcal tumours vary in size, and may be very hard, although usually they are soft, and retain the imprint of the examining fingers. They are *very mobile*, a symptomatic point of importance, and one never to be forgotten.

Combined rectal and abdominal palpation will give some idea of the situation of the fæcal masses and at the same time reveal the condition of the rectum and anus. A bismuth test with radioscapy will give useful data as to the shape and position of the colon, and should always be employed.

In many cases the diagnosis of congenital megacolon is easily made, but occasionally there may be some doubt as to whether or not the case is one of the large abdomen of rickets. However, the fact that megacolon may occur in rickets must never be forgotten.

Congenital megacolon must sometimes be differentiated from the various forms of tuberculous peritonitis, or, perhaps, from tuberculous mesenteric lymph-nodes. A rise in temperature, the presence of ascites, etc., will eliminate the diagnosis of megacolon.

The complications of megacolon are many. Acute intestinal occlusion is the most serious and is very frequent and quite likely to be the reason for first detecting the real condition of affairs, when,

after the abdomen is opened for the relief of the occlusion, a megacolon is discovered. This happened to me not long since in a female child, aged 8 years.

Sometimes the distended and infected colonic walls may undergo an ulcerative process, this giving rise to green, liquid and very offensive stools. Slight intestinal hæmorrhage may also occur, but it is not serious, although quite symptomatic of ulceration. The ulcers may perforate, resulting in fatal peritonitis, but this complication is unquestionably of extreme infrequency.

Compression of the iliac veins by the distended colon may result in œdema of the abdominal parietes, while pressure on a ureter has been observed.

But the cardio-pulmonary system is the one most prone to suffer from the effects of pressure. It is made manifest by dyspnœa, which may amount to orthopnœa, and cases have been recorded in which serious asphyxial phenomena with cyanosis have occurred.

Upward pressure on the diaphragm can cause important displacement of the heart, and abdominal distension results oftentimes in cardiac failure, palpitation, and dilatation of the right heart.

Phenomena of stercoræmic intoxication are all related to the same pathogenesis, namely, a retention of the intestinal contents. Paroxysms of tetany are not uncommon and are always of grave import.

Megacolon is prone to give rise to rickets.

The prognosis of this process in children is always serious, as medical treatment is practically useless. In adults, the outlook is somewhat better.

Colotomy has been resorted to to cope with the accidents of acute occlusion only, the mortality having been, so far, 50 per cent. Iliac colostomy has given a mortality of about 35 per cent.

A number of surgeons, regardless of the resulting infirmity, prefer cæcostomy to all other procedures, and I am inclined to adopt this view with certain restrictions. In a suitable case for primary colectomy I should be tempted to employ Paul's technique, using the largest tubes.

Colopexy is simple and safe, and when employed in properly selected cases, which in practice I assume to be rarely met with, the results have been satisfactory and the mortality *nil*.

Simple entero-anastomosis is said to produce atrophy of the useless colonic segment, and by the short circuiting obtained prepares the intestine for a more radical operation later on, such, for example, as colectomy and anastomosis.

To conclude. In constipated children, a properly-directed medical treatment with laxatives may be essayed, but if, after reasonable trial nothing is accomplished, it becomes incumbent upon the medical man to seek the surgeon's advice. The less needless delay there is and the earlier the child is seen the better will be the outlook for the patient.

In the following bibliography of megacolon only the more important recent literature on the subject is given, and all articles prior to 1909 are purposely omitted.

BIBLIOGRAPHY.

- AUDEOUD.—'Rev. Méd. de la Suisse rom.', 1918, xxxviii, p. 138.
 BAUMEL.—'Journ. des Pract.', 1910, xxiv, p. 401.
 BENSAUDE. GILLARD, et RONNEAUX.—'Bull. et Mém. Soc. Méd. Hôp. de Paris,' 1911, xxxii, p. 41.
 BIERMANS.—'Deutsche Zeitschr. f. Chir.', 1910, cv, p. 261.
 BLOCHMANN.—'Berl. klin. Woch.', 1911, xlviii, p. 564.
 BROCA.—'Traité de Chir. Infantile,' 1914.
 CASICCIÀ.—'Liguria Médicale,' 1911, p. 243.
 CHATOU.—'Arch. Méd. Chir. de Province,' 1911, vi, p. 533.
 CLERMONT.—'Arch. Méd. de Toulouse,' 1912, xix, p. 66.
 COHEN.—'Journ. Méd. de Bruxelles,' 1911, xvi, annexes 151.
 CONCOURS.—'Thèse de Bordeaux,' 1916, No. 57.
 CULAN, A.—'Thèse de Paris,' 1909-10, No. 192.
 DELORE.—'Rev. de Méd.' 1911, xxxi, num. spéc., p. 229.
 FRASCELLA.—'Il Policlinico,' 1910, xvii, Sez. Chir., p. 180.
 FROEHLICH.—'Prat. des Mal. des Enf.', 1910, vii.
 GAYET et PATEL.—'Lyon Chir.', 1911, v, p. 209.
 GOEBELL.—'Arch. f. Chir.', 1911, xcv, p. 921.
 GRÉGOIRE et DUVAL.—'Bull. Soc. Chir.', 1913, xxxix, p. 2.
 HELLER.—'Münch. Med. Woch.', 1911, lviii, p. 1059.
 JOSSELYN DE JONG, and MUSKENS.—'Journ. de Chir.', 1910, v, p. 65.
 KUMMER, PATRY, et MAILLARD.—'Rev. Méd. de la Suisse rom.', 1913, xxxiii, p. 500.
 LEGGETT, W.—'Brit. Med. Journ.', 1911, i, p. 677.
 MAUCLAIRE.—'Bull. et Mém. Soc. de Chir.', 1913, xxxviii, p. 108.
 MEYER, O.—'Deutsche Med. Woch.', 1913, xxxix, p. 416.
 MORESFIN.—'Bull. et Mém. Soc. de Chir.', 1910, xxxvi, p. 362.
 NAVARRO.—'Bull. et Mém. Soc. de Chir.', 1913, xxxix, p. 444.
 OKINCZYC.—'Revue de Chir.', 1909, xl, p. 867.
 PATEL.—'Ann. Gyn. et Obstét.', 1910, 2 sér., vii, p. 629.
 PARKINSON.—'Proc. Roy. Soc. Med.', 1911, iv, Child. Sect., p. 75.
 PAUCHET.—'Bull. et Mém. Soc. de Chir.', 1912, xxxviii, p. 1486, and 'Arch. Prov. de Chir.', 1913, xxii, p. 17.
 PÉHU.—'Arch. Méd. des Enf.', 1914, xvii, p. 53.
 PIERI.—'Rivista Ospedale,' 1912, ii, p. 357.
 POTTER.—'International Clinics,' 1909, iii, p. 196.
 PULS.—'Beitr. zur klin. Chir.', 1910, lxix, p. 306.
 RICHE.—'Bull. et Mém. Soc. de Chir.', 1911, xxxvii, p. 1365.
 ROTH.—'Inaug. Diss., Freiburg in Baden, 1914.

SCHPELMANN.—'Münch. Med. Woch.,' 1911, lviii, p. 2527.

SOREL.—'Arch. Prov. de Chir.,' 1911, xx, 533.

STROBEL.—'Inaug. Diss.,' Leipzig, 1909.

TERRY.—'Journ. Amer. Med. Assoc.,' 1911, lvii, p. 731.

WEIL.—'Thèses de Nancy,' 1909-10, No. 29.

ZOEFFEL.—'Inaug. Diss.,' Strassburg, 1909; and 'Virchow's Archiv,' 1909, cxviii, p. 119.

CONDITIONS SIMULATING DISEASE WHICH MAY BE PRODUCED BY TEETHING.

By JAMES BURNET, M.A., M.D., M.R.C.P.Edin.

MOST of us, I think, gather from studying text-books on pædiatrics that teething in itself is rarely the cause of serious symptoms, and that when the latter are present it is quite a mistake to attribute them to dentition. On the other hand, the laity very often tell us that infants cut their teeth to the accompaniment of diarrhoea, vomiting, eczema, convulsions, and so on. Certainly, a rachitic infant usually experiences more trouble in cutting its teeth than a healthy baby; but apart altogether from rickets I do believe that teething in itself, even in a perfectly normal and healthy infant, may give rise to serious symptoms, which, together, may form a complex simulating some more or less grave disease condition. The following brief notes of random cases which have come under my observation serve to prove the truth of this statement.

A. R—, a male infant, aged 18 months, non-rachitic, born of Jewish parents, was brought to my clinic at the Marshall Street Dispensary. It had been ill for three or four days. It presented the following features: Marked head retraction, extreme drowsiness, vomiting, somewhat irregular breathing, slow pulse, and obstinate constipation. The diagnosis naturally seemed at first sight to be (tuberculous?) meningitis. A more careful examination, however, while it negatived apical pneumonia, showed that in all probability the cause of the symptoms was the cutting of a canine tooth. A suitable laxative was ordered, together with hot baths and a simple mixture to control the vomiting. The mother was lost sight of, however, until some months later she reappeared with another child. She told me that she had taken the former patient to the hospital two days after I had seen it, as the infant appeared to be no better. The physician who saw it there told her that there was inflammation of the brain, and that she had better take the baby home as it would not recover in any case. A week later, however, the symptoms

completely disappeared when the offending canine tooth made its appearance.

M. S—, a female infant, aged 10 months, non-rachitic and very carefully brought up by a most intelligent mother. One day this infant suddenly developed very rapid breathing, with cough. The doctor who saw the baby within twenty-four hours of the commencement of the symptoms very naturally made a diagnosis of pneumonia, although he could make very little of the physical signs. This is a case where one could not be misled if the principle is carefully kept in mind that given certain physical signs in a chest case the diagnosis must be made accordingly, whereas their absence almost always precludes the possibility of disease in spite of symptoms. I was asked to see the patient on the fifth day. I could find nothing to warrant a diagnosis of chest trouble save only the very hurried breathing. The infant was very restless. On examination of the mouth the upper gums were much swollen and very red and dry. The patient screamed when any attempt was made to open its mouth. An incisor tooth was seen shining through the much swollen gum. I gave this as the cause of the trouble, and so it turned out to be, for no sooner was the tooth cut than the rapid breathing completely disappeared. I have seen quite a number of similar cases with which every pædiatrist must also be familiar, but they are certainly puzzling to the general practitioner.

P. W—, a male child, aged 2 years, with a non-rachitic history. He had previously been quite healthy, and had had very little, if any, trouble with dentition. He woke up suddenly one night, screaming. After lifting him out of his cot and giving him a warm drink he became quieter, but he vomited the milk which he had taken. He fell asleep again, but next day he vomited every meal. In the evening I was sent for, and found a child with pinched and drawn features, a rapid and very feeble pulse with a temperature of 103° F. Examination of chest and abdomen revealed nothing abnormal, nor did a rectal examination, which, by the way, should always be made in every doubtful case. There was nothing pointing to *B. coli* pyelitis, as the urine was being passed quite freely without pain or other symptom. At first sight it looked as if we had to deal with an abdominal case, but, again, examination of the mouth revealed the fact that the child was cutting one of his back teeth. The symptoms continued with only slight improvement until the twelfth day, when the tooth appeared and they passed off. By this time the child was very pale, and had lost much weight, but cod-liver oil and careful feeding soon restored him to complete health.

These three cases are, perhaps, somewhat out of the usual, but they go to prove the truth of my assertion that teething can give rise to serious symptoms, besides being quite a definite exciting cause of such conditions as diarrhœa, vomiting, eczema, bronchial catarrh, and convulsions, as well as of screaming fits and strabismus. In one case I have known facial paralysis induced by difficult dentition; and in older children chorea has been so caused, although probably in every one of my cases there was a predisposing rheumatic tendency operative as well. It would, therefore, in view of these observations, be most unwise to dismiss teething from our minds when face to face with difficulties in diagnosis in pædiatric practice. In the case of infants presenting obscure symptoms, especially where definite physical signs are absent or anomalous, I recommend that these four investigations should be carried out, viz. examination of the urine, rectum, throat, and mouth. I find that general practitioners, and sometimes consultants too, overlook at times pyelitis, intussusception, tonsillitis, and difficult dentition. The latter certainly deserves more respect than is usually accorded to it in text-books and by lecturers on pædiatrics. While it would be unwise in the extreme to put down every infant malady to teething, as parents generally do, it would be just as foolish to set this possible explanation of otherwise obscure symptoms aside altogether, as by so doing we may entirely overlook a most important cause of some puzzling combinations of symptoms.

PRIMARY SARCOMA OF THE LUNG.*

By J. PORTER PARKINSON, M.D.,

Senior Physician, Queen's Hospital for Children.

A BOY, aged 5 years, was admitted to the Queen's Hospital for Children on October the 2nd, 1917. He had just been discharged from the surgical wards after an operation for inguinal hernia.

He complained of cough and difficulty of breathing, which had only been noticed since his discharge. His temperature varied between 101° and 102° F., his pulse from 130-160, and respiration from 40-60. He had orthopnoea and much dyspnoea on any movement. The whole of the left side of the chest front and back was dull, the movement was very limited especially below, and the

* Specimens of the case were shown at the Section for the Study of Disease in Children of the Royal Society of Medicine on January the 25th, 1918.

breath-sounds were very weak and harsh. There was some ægophony at the angle of the scapula. The heart was displaced to the right, its deep dulness reaching to half-way between the right sternal edge and the right nipple. On the second rib close to its junction with the cartilage was a small lump the size of half a walnut, immobile and elastic but not fluctuating. The chest was explored and bloodstained fluid was withdrawn. Microscopically this fluid consisted almost entirely of blood, and no other cells could be distinguished and no organisms were found. A day or two later a large hæmorrhagic swelling appeared over the sternum, but soon disappeared. The child developed a severe paroxysmal cough, and gradually the dulness over the left lung extended across the sternum to the right and the displacement of the heart became much more marked. Wasting now became pronounced. In December he began to suffer from occasional attacks of dyspnœa with cyanosis, which were relieved by oxygen but became more frequent, and death took place on December the 14th, ten weeks after admission.

At the necropsy the whole of the left lung was a mass of soft, friable, hæmorrhagic growth, very firmly adherent to the chest-wall, diaphragm, and pericardium. Hardly any lung tissue remained. The growth extended well beyond the right edge of the sternum, compressing and causing collapse of the right lung, which was otherwise normal except for two small nodules of growth in the lower lobe. The glands at the bifurcation of the trachea were not enlarged; the bronchial glands were involved in the mass of the growth. The heart and pericardium were normal, but displaced so as to lie on the right side of the sternum. The nodule on the rib was about the size of a plum, and was continuous with the intrathoracic growth. All the other organs were normal. The microscopical appearance was that of a small, round-celled sarcoma.

A case almost identical with the above was shown before the Society for the Study of Disease in Children in 1906 by Dr. Langmead, who stated that since 1860 there had been only one previous post-mortem examination on such a case at the Great Ormond Street Hospital.

The signs, as in Dr. Langmead's case, were most suggestive of pleural effusion, and, curiously enough, a tumour on the second rib was present in both cases.

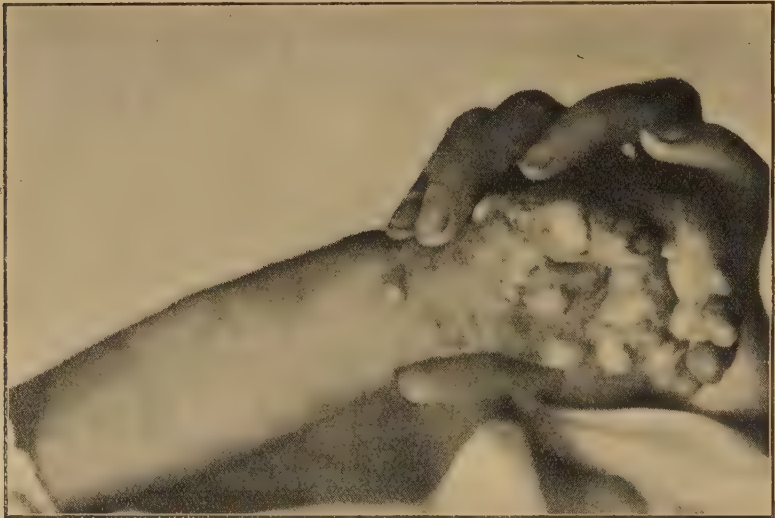
I am indebted to Miss Stogden, the pathologist, for the post-mortem notes of the case.

HERPES ZOSTER OF THE ARM AND HAND IN AN INFANT.

By GEORGE PERNET, M.D.,

Dermatologist to the West London Hospital and Lecturer on Dermatology West London Post-Graduate College.

HERPES ZOSTER of the hand and of the foot is rare. I have seen but few instances of either, although a number of cases of herpes zoster have come under my notice and care. This is the first one of the kind I have observed in so young a subject. The patient was a



Herpes zoster of the arm and hand in an infant.

male infant aged 18 months, which was brought to my clinic on August the 10th, 1917 (N. 5292). The duration was three days. There were three characteristic groups of vesicles on the lower part of the flexor surfaces of the left arm and on the forearm. But about the left hand and fingers there were a number of large bullæ coalescing here and there, and involving mainly the palmar aspect. The photograph brings out the appearances very well. The infant had had a bad attack of measles in the preceding June, and that was followed by diarrhoea and loss of weight. The child appeared pretty well nourished, however, when I saw it. The large bullæ were carefully snipped with scissors to get rid of the fluid contents and the hand and fingers dressed with boracic ointment. For the

other parts the following was ordered R: Lot. glycer. plumbi subacet. (1 in 8), lot. calaminæ āā., to be dabbed on. The case did well on this and made a good recovery.

Whether the attack of measles played a part in the production of the subsequent herpes zoster I cannot say, but it is quite possible, although I do not find the latter among the complications and sequelæ of measles mentioned by Osler, Fagge, or Trousseau.

THE SURGICAL TREATMENT AND CURE OF SUPPURATIVE OTITIS MEDIA CHRONICA IN CHILDHOOD.

By JAMES B. HORGAN, M.B., Ch.B.,

Hon. Laryngologist and Otologist to the North Infirmary, Cork.

IF it be properly understood that the ultimate utility of the chronic suppurating ear of childhood will in a large measure depend upon the resultant disorganisation of the conductive apparatus or middle ear, and that the disorganisation will depend upon the length of time during which the disease has remained active it will be readily seen that all efforts at treatment should aim not only at obtaining but still more in maintaining a dry ear.

It must be clearly borne in mind that ear disease of this type in children is in the vast majority of cases secondary to interference with the natural drainage and ventilation, or to continuous reinfection of the middle-ear space, and that any treatment which fails to ascertain, and if present remove this exciting cause, must, *ab initio*, fail to do more than bring about a very temporary amelioration of the disease. Hence it should be our invariable rule thoroughly to ascertain in the first instance the obstructive or infective agent in the child's nose, pharynx, or mouth, and to effect its removal.

Such a statement, though it savours of the commonplace, may nevertheless, I am of opinion, when examined in all its bearings and interpreted in the light of recent knowledge, serve to explain why a not inappreciable percentage of these cases fail to respond to the routine treatment adopted, when the pharynx is nominally healthy or has been rendered so by surgical means.

A preliminary and exact examination of the patient's mouth, nose, and pharynx is, therefore, of paramount importance. To examine the naso-pharynx I have resort in the first instance to the naso-pharyngeal mirror. If, as generally happens, this is not tolerated, valuable information as to the condition of the mouth and oro-

pharynx is, at any rate, obtained. Should the mirror prove impracticable, I ascertain by anterior rhinoscopy which nostril is the more patent and get the child to sniff up this side some weak cocaine-adrenalin solution from a piece of cotton-wool. It has, indeed, surprised me in what a large proportion of cases this simple expedient, aided by a little coaxing, has enabled me to attain my end. The resultant intranasal ischæmia and contraction rapidly permit of our estimating the size and disposition of any adenoids present. They may be more readily seen by getting the child to phonate. This method has the added advantage of enabling us to ascertain at the same time the presence of any gross intranasal abnormality. In refractory children this method may still be employed to the exclusion of all others; in these cases, however, it is necessary that the child be suitably and firmly held by the nurse assistant and that the solution be applied to the inferior meatus by a spray, or better, by means of a cotton-wool carrier under visual control.

I would here enter a protest against the digital exploration of this region. Apart from being unsurgical, it is a very potent factor in permanently destroying the little patient's confidence and goodwill. For some years I have quite ceased to use this method in my routine examination of cases. It is only justifiable in the very rare cases of suspected fibrosarcoma.

Adenoids, if present in any amount, should be removed. In this respect it is necessary to remember that the disposition and condition of any adenoid mass present is of equal, if not greater, importance than its size. A small but septic adenoid mass—aptly compared by Laurens to a septic sponge—when situated anywhere in the nasopharynx, but more especially in the neighbourhood of Rosenmüller's fossæ, is a very potent factor in the continual reinfection of the Eustachian tube and middle ear, even though its presence may in no sense interfere with respiration. A failure to diagnose the presence and effect the removal of such small septic foci is a frequent cause of the interrupted continuation of the ear discharge. I have on many occasions curetted the lateral aspects of a child's nasopharynx in cases in which the usual topical applications had failed to stop the ear discharge, and in which no macroscopic evidence of the existence of adenoids had previously been obtained. In a surprising number of these cases a cure rapidly resulted.

If any hypertrophic conditions of the inferior turbinals have been confirmed at the original examination they require reduction, which, if necessary, should constitute the first step of any operation under-

taken for the removal of tonsils or adenoids or both. Further, if the child's nose be markedly obstructed on the affected side by a septal spine or deflection, I have now no hesitation in partially resecting this structure by the submucous method. I have done this in thirty-eight cases in children, the ages of whom ranged from 6 to 14 years, that is, under the age at which this operation is commonly supposed to result in facial deformity. In none of my cases has any subsequent disfigurement been complained of by the parents, though in many of the cases several years have elapsed since the operation. I attribute this fact to my making my primary incision as far back as possible and to my always keeping well away from the dorsum nasi. I may here state that it is the rule rather than the exception for me to combine these forms of surgical treatment with the removal of tonsils and adenoids, both in simple obstructive and in ear cases it rarely prolongs the operation by more than a few minutes, and as nasal plugs are at most necessary for a few hours, the danger of post-operative complications can hardly be said to be increased. A failure to appreciate the close connection between intranasal and nasopharyngeal abnormalities in the surgical treatment of suppurative otitis media in children is a frequent cause of indifferent or bad results.

To better illustrate my technique in operating on these cases, I will consider a case needing operation in all three regions—nose, naso-, and oro-pharynx. Preliminary dental treatment is advisable in most cases, and the mother should be instructed as to the necessity of making sure that the child cleans its teeth with due regularity both before and subsequent to operation. In those children old enough to use it, a thymol mouth wash is ordered as well. It should, in all cases, be ascertained, by an examination carried out immediately before operation, that any signs of acute angina of any part of the air-passages are absent.

Anæsthesia is induced by C.E. mixture, usually on a Silk's inhaler, which is taken off and applied at intervals. Five per cent. cocaine solution sometimes, with the addition of adrenalin, is usually applied to the lower nasal meatus and septal mucous membrane after the patient is under.

The child's head is slightly raised on one pillow, and a sandbag is placed below the occiput. Working with reflected light a very slight turbinotomy is performed with a sharp nasal scissors. This will often be unnecessary if the turbinal bone is simply protuberant by forcibly fracturing it at its attachment and dislocating it outwards with a strong, flat, nasal forceps. This manœuvre, which I have

found in itself a most valuable and conservative means of relieving nasal obstruction of this type, is of special value in enabling the operator to visualise and remove with the cold wire snare the posterior turbinal enlargement that is so often present. To do this it is not at all necessary to insert the left forefinger into the nasopharynx to guide the snare as is often stated. The *tour de force* just described, aided by the ischæmia resulting from the cocaine, will enable the operator in all cases to attain his aim quickly if a suitable curve be previously given to the wire loop of his snare.

Gauze plugs having been inserted in the nose, and the anæsthetist having intimated that the patient is suitably under, the next step in the operation should be, if necessary, the removal of the tonsils. This is highly desirable in 95 per cent. of suppurative ear cases, and it is worthy of mention that the actual size of a child's tonsil is often very difficult to ascertain without actual palpation, which can, of course, be best carried out on the table.

The pillow and sandbag are removed by an assistant, and the tonsils enucleated by the method described by Pybus and Whillis. If a tonsil is very large or of the elongated variety two bites may be required, but I find this is very rarely necessary in children. With a little education of the tactile sense, the orientation of the instrument and the removal of the tonsils can be carried out entirely by touch. This conduces to speed, which is of extreme importance at this stage whilst the child is lying on its back, and it further obviates the undesirable use of sponges or mops. The trained finger, when rapidly swept between the faucial pillars, will have no difficulty in ascertaining if the removal has been complete. The time taken in removing both tonsils should rarely exceed ten seconds. Ambidexterity in the use of the tonsillecator is absolutely necessary for the safe, rapid, and complete removal of the tonsils. Upon its conclusion being signalled to the nurse, who stands with her assistant to the left of the patient, the child is rapidly lifted well over on its side for the removal of the adenoids. It is of great importance for the safety of the operation that the surgeon and his nurse assistant be in thorough working agreement, by which I mean that the latter knows, without verbal intimation, when, and in what manner, her services will be required.

The removal of the adenoids, though for obvious reasons reserved until the end, is, nevertheless, the most important of all surgical measures undertaken for the cure of chronic suppurative ear disease in children. It is, unfortunately, frequently performed in a haphazard, not to say dangerous, fashion.

Blind curettage of any cavity, least of all a cavity which must *à priori* be more or less septic, cannot be considered an ideal surgical proceeding, but let us at least reduce the risks to the reducible minimum. Quickness and precision are of the greatest importance. I use a curette of the Beckman type. It should be *sharp* and of suitable size. The operation is carried through with three sweeps of the curette. The central removes the main mass of the growth and the lateral its lateral prolongations. In ear cases I am in the habit of finishing the operation by inserting Hartmann's lateral curette, which, after proper orientation with the left forefinger, is swept rapidly from side to side so that the cutting edge engages and clears the upper part of each posterior choanal aperture and Rosenmüller's fossa of each or of the affected side.

The nose, mouth, and pharynx having been rendered as healthy as possible, our attention should then be directed towards the actual conditions prevailing in the middle ear. Polypi, if present, should be removed, and granulations cauterised with chromic- or trichloroacetic acid.

As regards local treatment, the installation of warm drops of equal parts of hydrogen peroxide and 70 per cent. alcohol has given me the best results. The mother should be directed to instil the drops lukewarm, allow them to remain in the ear two or three minutes, dry them out with cotton-wool whilst tilting the head to the affected side, and then to repeat the whole procedure a second, or even a third time, immediately. Syringing with a warm alkaline or saline solution is only called for if the discharge is profuse or foetid, conditions which will usually rapidly disappear under treatment. The intervals at which it is required will thus tend to increase from the inception of treatment. Cotton-wool should not be worn in the ear in the absence of profuse discharge, as the drying and healing properties of air and light are of great importance in curing these anaerobic infections. If the ear still fails to respond to treatment, a cure may, in many cases, be obtained by curettage of the isthmus and external end of the Eustachian tube as described by Yankauer. I curette the tube from its tympanic ostium under general anaesthesia, using Alexander's Eustachian curette in preference to Yankauer's instruments. The curettage should be very thoroughly performed, so as to destroy the mucous membrane of this part of the tube, but force is neither necessary nor free from risk. The procedure has enabled me to get a dry ear in about 60 per cent. of the selected cases in which it was tried. No ear in which the tympanic ostium of the

tube is visible in the perforation should be subjected to a radical mastoid operation until this comparatively simple expedient has been given a trial.

From practical experience I have ceased to regard a postero-superior perforation as a sign that the antrum is irreparably involved and that a radical mastoid operation is *ipso facto* required. The antrum must, to some extent, be very often involved with the middle ear, but the means of clinical investigation at our disposal will rarely permit of our saying that if the source of infection be removed and adequate drainage re-established, the antrum has not sufficient recuperative power to cure itself. The common sources of infection, where they are to be found and how removed have already been detailed. Cases of demonstrable cholesteatoma or of chronic attic suppuration discharging through a small perforation are, of course, exceptions; but the latter—at least, in my experience—is of comparative rarity in children.

Finally, in a very small proportion of cases, such as those of scarlatinal or tuberculous origin or in which cholesteatomatous changes are present, an ossiculectomy, or eventually a radical mastoid operation, is called for.

From practical experience in the after-treatment of many cases of Heath's modified operation performed by that surgeon himself, I cannot advise this operation which is designed to cure the antro-tympanic disease whilst conserving the remains of the conductive apparatus. It appeared to be only successful in those cases in which a much less radical form of surgical treatment would also have effected a cure.

What I wish particularly to point out is that the radical mastoid operation is still performed on children much more frequently than is necessary, and that this is due to a failure to understand and remove the underlying causes of the infective and obstructive process. In my own practice I have learnt to perform this operation on children with ever-increasing rarity. All who have performed it in any number of cases have experienced the ear that refuses to dry after operation because of a persistently unhealthy Eustachian orifice and tube. In these cases the radical mastoid operation should, in all probability, never have been performed.

In conclusion, it may not be out of place to repeat here that, inasmuch as prevention is better than cure, it should be remembered that in almost all cases chronic suppurative ear disease starts as an acute infective process which, as Woods has so well pointed out and proved in his own practice, may be readily cured with a

minimum of injury to the special organ concerned in the space of a few weeks or less by simply treating the primary ear lesion on the same principles of aseptic surgery that are applied to other parts of the body, and thereby ensuring that an infection which, in the first instance, is due to a single micro-organism may not by external contamination rapidly become a multiple one.

When it is duly recognised in practice as well as in theory that the chronic suppurating ear of childhood is, in most cases, a direct sequence to the inefficient or faulty treatment of a simple acute middle-ear inflammation, and children are no longer discharged from fever hospitals with their ear lesions still unhealed, then, and only then, will the great number of these cases visiting every ear clinic show any sign of diminishing.

A CASE OF ANAPHYLAXIS.

By G. H. WAUGH, L.R.C.P. & S.Edin.; L.R.F.P.S.Glasg.,

Rugby.

ON November the 3rd last a girl, aged 17 years, was brought to my surgery by her mother, suffering from "dirty throat." I examined her and came to the conclusion that it was diphtheria, the membrane extending over both tonsils and the soft palate adjoining. I took a swab and my diagnosis was afterwards confirmed by Birmingham University. The girl was obviously ill, and I advised the mother that she should have an immediate injection of antitoxin. She agreed, and while preparations were being made she remarked: "Gladys had diphtheria ten years ago and the injection made her very ill." I questioned her about this and she described the effects as a "fit," in which the girl screamed, turned purple, and frothed at the mouth. Regarding the case as urgent I gave 4000 units of antitoxin (Burroughs & Wellcome) between the shoulders; one-half on each side of the middle line. The girl dressed and at once complained of headache, then sat down, looking very ill. I put her on the couch, but on her mother suggesting that she wanted to go to the lavatory (this being an effect of the injection of ten years previous) she got up, took one step, and collapsed in my arms. I laid her down and she died almost immediately; the time from the giving of the injection till death took place being not more than five minutes.

The visible effects at the time of death were: (1) Deep cyanosis without flush, the colour of the flesh being a livid dark blue, the

lips nearly black ; (2) great difficulty in breathing ; (3) frothing at the mouth. The girl only spoke once, saying, "I can't breathe."

I at once communicated with the Coroner's officer and a post-mortem examination was subsequently made by Dr. C. R. Hoskyn, at which I was present. The only condition found was a general stasis with well-marked congestion of the lungs.

At the inquest the following points were raised :

(1) Why the girl came to my surgery ? The mother stated that it was the girl's own wish and that she walked as well as she (the mother) did.

(2) Why the mother did not observe that the girl was ill before the day previous ? The girl was at her work till mid-day and I defended the mother, as I know her to be a most devoted parent, and the disease is an insidious one in the earlier stages.

(3) The freshness of the serum. This, of course, was beyond reproach. The makers, Messrs. Burroughs & Wellcome, sent Dr. O'Brien to represent them at the inquest. Dr. O'Brien has been in charge of their serum laboratory for five years and had never had a similar case reported. He stated, justly, that had there been anything wrong with the serum there would have been other complaints.

(4) The effects of the injection, ten years previously. Since the inquest I have learned that the mother's description was substantially correct. Dr. Waller, now retired, then attended the girl. He states that he gave 2000 units at the patient's home ; that he was scarcely out of the street when he was sent for, though he did not receive the message till an hour later.

(5) The dose of antitoxin administered. This, my colleagues agreed, was a fair, average dose.

I have attended the girl and all the family for nearly five years. The father is fair, and suffers periodically from bronchitis. The mother is dark, slight, and active. She suffers from recurrent tonsillitis. The children, four girls, are all very fair, the one who died being the eldest. She was a typically catarrhal subject, suffering from both bronchial and nasal catarrh in bad weather. I attended her only a few weeks before her death for nasal catarrh. She never suffered from asthma, nor, to my knowledge, did any one of the family.

Anaphylaxis being so very rare a condition and the published reports themselves throwing so much doubt upon its existence, it is not surprising that those who might be regarded as experts are

undecided in their opinions as to whether such a case as this is the result of the condition called anaphylaxis or diphtheritic toxæmia. Now the girl, when I saw her, was undoubtedly suffering from the effects of the diphtheria toxins, but there was no sign whatever of cardiac failure, nor had the walk from home, about five minutes, distressed her in the slightest. As she knew me very well, there was no fear of me nor was she frightened at the injection; she, indeed, bore it extremely well. I am driven, therefore, to the conclusion that her death was due to something else, and the signs manifested being those described as anaphylaxis, I conclude that her death was due to that condition. These signs are: (1) Sudden collapse immediately following injection; (2) marked cyanosis; (3) arrested respiration, with frothing at the mouth; (4) post-mortem signs of stasis and pulmonary congestion.

It has never been definitely stated how long the effects of the primary injection last in anaphylactic subjects; this case, if accepted as one of anaphylaxis, establishes the period as at least ten years.

It has always been emphasised that anaphylactic subjects are asthmatic; I can state positively that this girl never suffered from asthma nor did anyone of the family. She was, as I have already mentioned, catarrhal.

At present we are taught that in anaphylactic subjects a small "sensitising" dose of any serum should be given some time before the curative dose. Judging from the rapidity with which fatal effects manifest themselves, this dose should be infinitesimal to avoid a catastrophe.

A RETROSPECT OF OTOLOGY, 1917.

By MACLEOD YEARSLEY, F.R.C.S.,

Otologist to London County Council Deaf Schools; late Senior Surgeon to the Royal Ear Hospital, etc.

THE literature relating to pædiatric otology has certainly suffered by the war; this year of 1917 has been a very lean year indeed. The difficulty is not so much to pick out the best of many papers, but to find any papers at all.

As one valuable paper in its relation to ear disease in children is especially to be noted "Some Hints on the Tonsil-Adenoid Operation based on an Experience of 5000 Cases," by Dan McKenzie ('Practitioner,' xcix, p. 109). No attempt will be made to summarise

this very sensible and fearlessly outspoken paper, because it should be read *in extenso*.

An interesting paper by J. Dutton Wright ('Medical Record,' cvi, p. 241) appeared on "Auricular Education of Deaf Children," in which it was insisted that the co-operation of physicians is needed in order that advantage may be taken of unrealised possibilities of educating slight powers of hearing remaining in the cases of many deaf children attending the special schools for the deaf. The reviewer can vouch for the truth of this statement and urges all whose practice lies largely among children to use their power in this matter. With the partially deaf (or "hard-of-hearing") child very few and very imperfectly-defined sounds reach them under the ordinary conditions of life—so few and so indistinct that they can attach no meaning to them. By the simple process of uttering these sounds at sufficiently short range and with sufficient loudness to reach them at the moment when one has awakened in their minds the ideas for which the sounds stand, their brains can be trained to comprehend language just as children with normal hearing gradually learn to comprehend it. The aid of the medical profession is much needed, both in detecting the existence of even very slight hearing-power in the little deaf children of from 4 to 10 years of age that they see and also in exerting their influence with parents and schools to secure the necessary auricular education for these deaf children. Often the mere planting of the idea of auricular education in the minds of the parents by doctors is enough to set its accomplishment in motion. But frequently more effort is needed. If all physicians, whether otologists or not, would lend a hand in disseminating this knowledge, many a deaf child would grow into a normal adult than could possibly have been the case if no access had been found to the brain through the ear.

'Child Study' (x, p. 88) contains an excellent paper by Irene R. Goldsack on "Development of the Language of Young Deaf Children." It is pointed out that deaf children vary as much in their degrees of intelligence as hearing children. The hearing child acquires speech as the natural result of life lived amongst speaking children. No attempt should be made to teach deaf children language, but they should be provided with countless opportunities and experiences whereby they can acquire the speech and language of common life in a natural way. They should be taught to articulate, which is the work of the trained speech teacher, but not until they have grasped the significance of speech, the use and value of speech-reading, and have shown a desire to speak. The

definite development of articulate speech should be dissociated from the development of language. The child should be talked to from the earliest moment, to interest him and make it "worth his while" to take the trouble to watch for speech.

Macleod Yearsley ('Journ. of Laryngology,' xxxii, pp. 117 and 145) published a long paper on "The Causation and Prevention of Educational Deafness." It gives full details of his observations on the children educated in the London schools for the deaf during the last nine years, confirming and extending the previous observations of Dr. Kerr Love. It shows the need for the complete investigation of each case, and how in the greater number much might have been done by preventive methods in early life; when the child has reached the age of compulsory school attendance and his condition is ascertained, it is often too late to render much help, save of an educational character. With the development of infant clinics and consultation centres, and with the establishment of nursery schools, cases may be ascertained and treated at an earlier date. Half the cases of primary ear disease are associated with unhealthy conditions of the nose and throat, of the nature of chronic catarrh, the factors in the production of which are mainly faulty hygiene and air-borne infection. It cannot be too strongly realised that the beginnings of these diseases must be sought and treated in the pre-school age. The cure must be sought in better sanitation, and still more in the sanitary education of the people.

"Hearing Tests from a Practical Standpoint" is the title of a paper by G. L. Richards ('Boston Med. and Surg. Journ.,' clxxvii, p. 213), in which hearing tests are discussed in detail. The author considers that they take up too much time. He prefers in ordinary cases to determine the quantity and quality of the deafness present and the situation of such lesions as far as tests can enlighten him. He employs tuning-forks for bone conduction and Rinne's test, takes the high and low tone limits and the voice test. He points out the difficulties attendant upon the testing of children and admits that many of them cannot be tested with any accuracy until the third or fourth year in school.

An interesting "Case of Acute Mastoiditis with an Enormous Leucocyte Count—both Mastoids opened—Recovery" is recorded by G. F. Keiper in the 'Annals of Otology,' etc., xxvi, p. 548. The patient was a boy of 4 years old, who started with an attack of tonsillitis followed by purulent bilateral otitis media. Temperature 100.2° F., pulse 134. The unusual feature in the case was the enormous leucocyte count of over 60,000 white cells per cubic milli-

metre. In a four-year-old boy, with comparatively small mastoid antra, "it seems almost inconceivable, to say the least," remarks the author. But the repeated blood-counts, made the same day, left no doubt as to the correctness of the observation. The day after operation this leucocyte count showed a decided drop to 16,500 per cubic millimetre.

Bacon ('Med. Record,' xci, p. 1127) has published a valuable paper on the "Complications of Acute Middle-Ear Suppuration, and the Difficulties in making a Diagnosis in Certain Cases." In the continuation of high temperature after incision of the drumhead, a warning is given as to the possibility of pneumonia. He cites the interesting case of a girl, aged 7 months, in which pyelitis simulated sigmoid thrombosis. Erysipelas and sinus thrombosis are both liable to be mistaken one for another.

Royal Society of Medicine.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

Friday, November the 22nd, 1917.

The President, DR. H. MORLEY FLETCHER, in the Chair.

Congenital Malformation of the Left Temporo-maxillary Joint and Both Hip-joints.—MR. A. S. BLUNDELL BANKART.—The patient, a girl, aged 5 years, first came under observation at the age of two years with ankylosis of the lower jaw, stated to have been present from birth. At operation the left condylar process was found to be fused with the base of the skull and with the zygoma. Both the condylar and the coronoid processes were removed.

The child was said to have had a slight limp since she began to walk. This attracted little attention at first, but on her re-admission to hospital in 1917 the limp was more noticeable. On the right side the great trochanter was high and prominent; movements of flexion and extension were free; abduction and internal rotation were much restricted. On the left side the hip appeared to be normal, but abduction was limited. There was no pain. The skiagram showed that the head of the right femur was absent; the neck was stunted and bent downwards and ended in a blunt point in the acetabulum. The head of the left femur and the upper part of the neck were very irregular, the head being flattened above. Both acetabula were large and irregular.

The appearances of the left hip were typical of the condition described by Calvé as *pseudo-coxalgie*, which was probably due, in the first place, to a congenital defect of chondrification. The right hip appeared to be in an advanced stage of the same condition, the femoral head having been completely absorbed.

Specimen of Sarcoma of the Right Kidney with Metastatic Deposits in the Skull.—MR. A. S. BLUNDELL BANKART.—A female child, aged 4 months, was admitted to hospital on September the 9th, 1917, with a soft swelling in the right orbit, which had been noticed for a fortnight. The child was fat and well nourished; the abdomen was rather large, but nothing abnormal was felt there. A few days after admission a soft swelling appeared over the right parietal bone and grew rapidly. There was no trouble with the bowels until October, when the child became constipated and vomited. The abdomen became very distended, it was resonant all over, and frequent enemata had to be given. Urine was passed normally. The child died on November the 5th. Necropsy: A sarcomatous growth was found in the right kidney. The abdominal lymphatic glands were large and infiltrated with growth. There was a large secondary growth involving the right parietal bone and the bones of the right orbit. The left kidney, the suprarenals, liver, spleen, lungs, and brain were all normal. Microscopical sections showed the growth to be a round-celled sarcoma.

Case for Diagnosis.—DR. J. PORTER PARKINSON.—A boy, aged 11 years, had been well until a year ago, when he had epistaxis and headache almost daily and was said to have become yellow in colour. Three weeks ago a swelling was noticed in his neck. On admission he looked well-nourished but somewhat anæmic. On the right side of the neck, just above the clavicle, was a tense, elastic swelling resembling a mass of enlarged glands. There was very slight jaundice. The liver was somewhat enlarged, the left lobe apparently more than the right, and felt harder than normal. The spleen could be felt three fingers' breadths below the costal margin. The kidneys could not be felt, and the urine was normal except for a trace of bile pigment. No enlarged glands could be felt in the abdomen or elsewhere than in the neck. The heart, lungs, and other organs appeared normal. There was no evidence of congenital syphilis, and the Wassermann reaction was negative. The blood-count was practically normal, viz. red cells, 4,080,000; white cells, 7,800; hæmoglobin, 62 per cent.; colour-index, .7. Differential count: Polymorphs, 65.9 per cent.; lymphocytes, 28 per cent.; eosinophils, 2.5 per cent. No variation in size or shape of red cells, no nucleated forms, no myelocytes. The fragility of the red cells was normal. The temperature had generally varied between 97° and 100° F. daily, with occasional rises to 101° or 102° F., and had sometimes been nearly normal for a day or two. The glands in the neck became softer and fluctuating, and on October the 17th some pus was evacuated. No tubercle bacilli were found nor organisms of any sort. During his stay in hospital the boy had seemed remarkably well, and had shown a slight increase in weight. There had been no epistaxis nor jaundice after the first few days. The urine was tested for urobilin, with a negative result. Two days previously a glandular abscess in the right groin was opened. The glandular affection appeared to be tuberculous, but that did not explain the symptoms nor the asymmetrical enlargement of the liver.

Friday, January the 25th, 1918.

The President, DR. H. MORLEY FLETCHER, in the Chair.

Vitiligo Patches with Central Pigmented Mole.—DR. J. L. BUNCE showed a girl, aged 12 years, whose hair of the scalp had been removed for

ringworm six years previously. The hair grew again and was normally pigmented. One year ago she developed two well-marked patches of calvities, and the hair over the two areas was quite white. At the same time she began to show patches of vitiligo, and there were now thirty-five such patches, varying in size from a five-shilling piece to a sixpence, some quite irregular in outline, some more or less circular. In the centre of three of the patches was a raised, deeply pigmented lesion, apparently a mole. Two of these patches with a central mole were situated on the body, and one on the neck. Such abnormal condition of vitiligo was extraordinarily rare. It was difficult to assume any direct connection between the previous epilation by X rays and the subsequent calvities.

Primary Sarcoma of the Lung.—Dr. J. PORTER PARKINSON (*v. p.* 28).

Case of Osteomalacia and Infantilism with Horseshoe Kidney and Interstitial Nephritis.—Dr. H. C. CAMERON.—A girl, aged 15 years, was admitted to hospital for extreme deformity of the wrists and knees which had appeared about eighteen months before. For the last six months she had been unable to walk, complaining of pain in the legs. For some years she had not grown in height but had become fatter. She was dwarfed and infantile in appearance. Osteotomy was performed; two days later complete suppression of urine, with increasing drowsiness, was noted. Death followed on the fourth day after the operation. The urine was said to be free of albumin. Post mortem the bones were very slender and so softened that in places they could be cut readily with a penknife. The lower end of the radius was bent outwards, forming a complete right angle with the shaft. The neck of the femur showed an angle with the shaft of less than a right angle. Skiagrams showed great irregularity of the epiphyseal line with extensive uncalcified areas in the surrounding bone. The kidneys were represented by a single horseshoe structure situated low down over the third and fourth lumbar vertebræ; the capsule was thick and adherent, and there were numerous cysts. The microscopical changes were those of chronic interstitial nephritis. The left ventricle was striate and hypertrophied. There were atheromatous changes in the mitral valves. No abnormality was detected in the thyroid or other ductless glands.

Case of Osteomalacia and Infantilism with Renal Deficiency.—Dr. H. C. CAMERON.—A girl, aged 17 years, was admitted to hospital for deformities of the wrist, knees, and ankles. She was said not to have grown since the age of 9 years, when her legs and arms first began to bend and to be painful. Since April, 1917, she had been unable to walk at all. The radius and ulna were bent sharply outward at their lower ends. The condyles of the femur were displaced inwards and backwards, and the lower end of the tibia was acutely curved as in rickets. The intelligence and general health was good. The specific gravity of the urine was low—1005–1008; there was albumin but no casts. The daily amount passed averaged about 70 oz. The blood contained 2·07 gr. of urea per 1000 c.c., or about seven times the normal. Ambard's constant 0·798, or about ten times the normal. Skiagrams showed similar changes to those in the previous cases. The Wassermann test was negative.

Dr. Cameron showed for comparison the bones of the upper and lower extremities from Mr. Davies Colley's case which was published in 'Trans. Path. Soc.,' xxx.

Case of Cretinism showing Delay of Epiphyseal Development.—

Dr. H. C. CAMERON showed a girl, aged $6\frac{1}{2}$ years. Height, 3 ft. 4 in.; weight, 34 lb. The symptoms of cretinism were not marked, but the skin was dry and the eyelids a little puffy. The eyebrows were poorly developed. A skiagram of the wrist showed the epiphyses had reached the development of a normal child of less than 3 years. The os magnum and the unciform had begun to ossify, but the centre for the pyramidal, the proximal epiphysis of the first and the distal epiphyses of the other four metacarpal bones, all of which should have appeared by the third year, were absent.

The infantilism was thus much more marked in the epiphyses than in the general appearance of the child. Dr. Cameron had never found any condition which he thought was due to a subthyroid state without very marked delay in the development of the epiphyses.

Case of almost untreated Cretinism in a girl, aged 28 years.—

Dr. H. C. CAMERON.—The patient was 4 ft. high, and was said still to be growing. The epiphyses, however, appeared all to have united. She was said not to have grown at all till the age of 7 years, when for two years she was treated from time to time. During these two years her teeth were cut, and she became able to walk with difficulty. Since then she has had no treatment. She showed most of the features of cretinism. The skin was harsh and dry, and there was infiltration of the subcutaneous tissue, especially of the face and hands. Menstruation was said to be normal. She could speak a few words. She still played with dolls.

Case of Erythromelalgia.—Dr. H. C. CAMERON.—The patient was a Jewish girl, aged 10 years, who last year suffered from a very extreme swelling of the hands and feet. This year her feet and right hand, though cold and cyanosed, had not shown her condition so markedly, but her left hand was very swollen and very painful. It got much worse in cold weather. After holding her hand up for some minutes the swelling completely subsided, and there remained only some stiffness and atrophy of muscles.

Congenital Obliteration of the Bile-ducts.—Dr. W. E. CARNEGIE DICKSON.—The case was of interest owing to the rapidly fatal issue, supervening on the third day after birth, the jaundice itself appearing on the second day. The birth was normal and the child appeared healthy; but a rapidly increasing jaundice appeared on the second day, it became comatose with spasmodic breathing, and it died in just under three days from birth. At the autopsy complete obliteration of the cystic, common, and right and left hepatic ducts was found, with marked dilatation of the intra-hepatic bile-ducts and deep bile-staining and congestion of the liver. Except for the general jaundice, the only other point of interest was the extreme congestion and hæmorrhages in the suprarenals, especially the medulla. Microscopical examination of the liver did not show any of the biliary cirrhosis usually described in such cases, the bile-ducts showing marked dilatation and some surrounding "small-celled infiltration." The liver-cells showed marked cloudy swelling, and fatty degeneration, and, especially towards the periphery of the lobules, were packed with bile-pigment. There appeared to be no septic cause, and the case, on the whole, was suggestive of the non-development of the lumen of the extra-hepatic bile-ducts rather than to their obliteration by some inflammatory process such as a cholangitis.

SECTION OF DERMATOLOGY.

July the 19th, 1917.

Case of Multiple Morphoeo-sclerodermia.—Dr. GEORGE PERNET showed a girl, aged 11 years, in whom the changes in the skin had first been noticed six weeks ago. There were now over the lumbar region and scapula faintly violaceous areas, with here and there oval patches of slight ivory-white sclerosed glistening skin, bordered by pale lilac wings. The oval patches were inclined to be symmetrical about the back.

Case of Extensive Nævus of the Trunk and Extremities Involving the Palms and Soles.—Dr. GEORGE PERNET showed a boy, aged 6 years, in whom the condition of the skin had first been noticed by the mother a week or two after birth. The nævus occupied a corset area of the trunk and upper parts of the thighs and buttocks, the front of the knees, with a boot and glove-like distribution about the feet and hands, the soles and palms being involved. The skin in that area was dry and rough to the touch, with striations, giving a curious variegated appearance, especially in front.

The fronts of the knees showed a rough patch on each. The backs of the hands and dorsa of the feet were slightly affected, but the palms and soles were rather dirty-looking and rough as in revalosis. Running up about the tendo Achillis were somewhat rough and red narrow linear bands, like a mild degree of nævus linearis.

The nævus was of a mildly verrucose type. Quite recently faintly pink scaly patches had appeared about the right elbow and under the left clavicle.

On scratching up the scabs, bleeding points could be made out, indicating a mild degree of psoriasis, which some might consider seborrhœic, especially as the scalp was dry and scurfy.

The boy was in good health and well nourished. There were no signs of syphilis in either mother or child, and the Wassermann reaction in both was negative.

October the 18th, 1917.

Case of Sclerodactyly.—Dr. J. H. SEQUEIRA.—The patient was a girl, aged 12 years, in whom the condition had first been noticed three years previously on the hands when she was under treatment for ringworm of the scalp. The child showed a very marked degree of sclerodermia, beginning at the hands and feet, and the face had the characteristic "marble statue" appearance. Her history was unimportant, but the condition was supposed to have dated from a fright. She had had chickenpox, scarlet fever, and measles, but not rheumatic fever.

The Wassermann reaction was negative. The lymphocytes were 18.5 per cent., *i. e.* between twice and thrice the normal proportion. Thyroid and various other treatment had been given without marked improvement.

Case of Adenoma Sebaceum: Pringle Type.—Dr. E. H. GRAHAM LITTLE showed a typical case in a girl. It was of congenital origin and associated with fibroid tumours on the back of the trunk—a common association. Over the sacrum there was a patch about the size of the palm of the hand, covered with characteristic pale fibrous tumours. She also

showed the mental backwardness characteristic of the disease. She was aged 14 years, and was in Standard IV. There was a history of fits, probably epileptic, between the ages of two and four. In a family of eight she was the only one who had such symptoms.

Case of Acne Scrofulosorum.—Dr. E. H. GRAHAM LITTLE.—The patient was an obviously tuberculous boy, aged 14 years, with an extensive eruption of acne scrofulosorum. The condition had an unusually long history, as it dated from the age of seven. A new eruption had occurred on the nose within the last two months. The question was whether that eruption was an extension of the tuberculide or whether it was a commencing acne vulgaris. Besides the skin condition, he had chronically swollen joints and enlarged glands in the neck. The face condition was the same as in the other parts. The present distribution was chiefly on the legs, thighs, hands, and forearms, where there was an extensive, closely aggregated eruption of typical follicular papules and pustules. The extremities were blue and cold, and the boy was ill-developed for his age. There was chronic alopecia as well of many years' duration.

November the 15th, 1917.

Bullous Urticaria in a Baby.—Dr. H. G. ADAMSON.—The baby, who was aged 17 months, had had very severe urticaria involving the whole body since the age of three months. It was not of the type of urticaria usually seen in children, viz. lichen urticaria, or, more rarely, urticaria pigmentosa. Dr. Adamson did not remember having seen this condition of generalised wheal formation in a baby before.

For more than a year there had been continuous eruptions of huge wheals over the chest and shoulders and head and neck especially, but also on other parts of the body and limbs. The wheals were accompanied by intense itching, so that when uncovered the baby tore at the skin with its fingernails. During the last six months the wheals had been frequently the site of large clear bullæ, which came up in a few minutes, and afterwards dried up into a crust. There were at present many crusts on the scalp and some clear bullæ on the forehead and neck. The general health had remained good. It was thought that the condition might possibly be due to milk idiosyncrasy, and for six weeks the child was put on a diet without any milk, but with no other result than that it lost flesh. It was weaned at the age of eight months, and the change of diet made no difference. No drug treatment had been of any avail.

SECTION OF OTOTOLOGY.

November the 16th, 1917.

Boy, aged 11 years, with a Cystic Swelling Occluding the Right Cartilaginous Meatus (?) Dermoid Cyst.—Dr. H. J. BANKS DAVIS.—The swelling, which was on the anterior and lower meatal wall, was elastic, and a speculum could be passed beyond it, revealing some secretion from the cyst. The symptoms were deafness and tenderness when the swelling was pressed. The cyst at first sight looked like a polypus which had become epithelialised.

Foreign Body, a Green Pea, removed from Middle Ear by Post-aural Operation on a Boy, aged 10 years.—A fortnight previously an attempt had been made in the casualty department to remove a foreign body which the boy stated he had pushed into his ear, but nothing could be found. The boy was admitted to hospital, and a large pea with the husk complete was removed from the middle ear.

SECTION OF LARYNGOLOGY.

November the 2nd, 1917.

Fusiform Dilatation of the Œsophagus, coated with Oidium Albicans and apparently Idiopathic.—SIR STCLAIR THOMSON.—A girl, aged 15 years, was admitted to hospital with a suspicion of an œsophageal pouch. The symptoms had started one year previously with violent fits of coughing and regurgitation of food. She had no difficulty in swallowing and ate anything, but shortly after each meal food was regurgitated into her mouth. The condition varied; for fourteen days she might have little or no difficulty in retaining everything, and then for days she might be unable to get any food down, as regurgitation followed fast on any attempt to swallow. It was rare for food to be regurgitated which had been swallowed on the previous day. No blood. Discomfort referred to middle of sternum. No loss of weight or strength, and patient was particularly vigorous, well-grown, and intelligent. She had had every single tooth in her upper jaw removed, as it was thought her trouble was due to pyorrhœa.

Present condition.—On ordinary examination there was nothing to be detected.

Examination on the screen showed that a bismuth meal passed freely to the middle of the œsophagus, where it was held up for a short time.

Plate examination showed a definite obstruction at the cardiac end of the œsophagus, with considerable dilatation above the obstruction and some irregularity of the shadow about the middle of the œsophagus. Œsophagoscopy was particularly easy, and showed an evenly and widely dilated fusiform gullet, irregularly coated with extremely adherent plaques of dirty white material like curdled milk. On removal this material was found to consist of a mass of *oidium albicans* with other bacteria. No pus, blood, or fragment of growth. A series of lavages, including peroxide and eusol, were carried out in May and the patient was relieved. She had again come under treatment and remained much *in statu quo*.

SIR STCLAIR THOMSON proposed to dilate the cardiac and stimulate the constrictor peristaltic muscles.

Excision of the Retro-pharyngeal Gland from Recurring Retro-pharyngeal Abscess of Tubercular Origin.—MR. NORMAN PATTERSON.—A boy, aged 7½ years, had a retro-pharyngeal abscess, evidently tubercular, opened through the right side of the neck in November, 1915. When seen on March the 8th, 1917, there was a large swelling, causing the right posterior pharyngeal wall to bulge forwards and extending past the middle line. A swelling was also present in the upper part of the right side of the neck. A long incision passing through the old scar was made behind the sterno-mastoid and the abscess evacuated. The dissection was then carried inwards behind the carotid sheath and pharynx, and the retro-pharyngeal

gland, which was much enlarged, caseating in parts and in parts calcified, was removed. The abscess wall was curetted and the cavity packed with gauze. Healing took place slowly. In September, 1917, the patient developed an abscess in the left axilla and there was now an enlarged gland on the left side of the neck.

Lupoid Tuberculosis of the Pharynx, affecting the Soft Palate and Uvula in a Subject of Congenital Syphilis.—Dr. IRWIN MOORE.—

The patient, a boy, aged 8 years, was first seen on January the 16th, 1917, when he was suffering from enlargement of the submental, posterior, cervical, and inguinal glands of eight months' duration. The submental glands, which were matted together, disappeared in six months under potassium iodide treatment. When he was first seen the uvula showed a semi-translucent swelling, extending over the greater part of the soft palate; it was solid, rigid, and leathery in consistence. This did not vary till two months later, when the infiltration gradually extended downwards along the posterior faucial pillars. The tonsils were not enlarged. They were enucleated, and sections were examined for tubercle bacilli with negative result, but typical giant-celled systems were present. Sections of the adenoid tissue removed from the nasopharynx on February the 14th showed giant-cells of full size, together with others isolated in fibrosing tissue containing only a few nuclei. A cervical and inguinal gland were removed. The cervical gland was found to contain one or more caseous foci, surrounded by fibroblastic tissue containing a few giant-cells typical of a tuberculous lesion. The inguinal gland showed areas of endothelial proliferation, but no giant-cells. There was no caseation. Inoculation of a guinea-pig was negative.

Examination of the larynx on March the 24th by Killian's suspension apparatus showed cedematous infiltration of the epiglottis and arytenoids, but no signs of ulceration. There was no difficulty in breathing. No history of tuberculosis and no pulmonary signs were present until March the 10th, when fine moist crepitations were heard over the whole of both lungs. A slight cough, night sweats, and slight rise of temperature were present. The child was losing flesh, though the appetite was good. Radioscopic examination at first showed no enlargement of hilar glands, no peribronchial striation, and no enlargement of the tracheo-bronchial glands, but radiograms taken on July the 16th, 1917, showed enlargement of hilar glands with associated peribronchitis tuberculosa simplex. A definite tuberculin reaction was obtained on June the 26th after diagnostic injection of 0.001 c.c. O.T., and a few days later the soft palate looked pinker and more normal. On palpation, marked softening of the infiltrated palate was felt, probably the result of the tuberculin reaction. Blood examination showed a mild anæmia of secondary type with leucocytosis. Leukæmia could be excluded. Two independent authorities found a strongly positive Wassermann reaction, and the parents admitted infection with and treatment for syphilis. The patient himself had had no treatment for syphilis.

Congenital Deformity showing a Nose with Four Nostrils.—

Sir ST. CLAIR THOMSON.—The patient was a female infant aged 4 weeks. The extremity of the nose showed three good-sized vestibules with two columellæ, and on closer inspection a smaller fourth orifice was visible. Examination with a probe showed that the most external orifice on each side was the true air-passage, the two supplementary orifices being internal.

These latter orifices were blind *cul-de-sacs*, the smaller one being only about $\frac{1}{4}$ in. long, and the larger one about $\frac{1}{2}$ in. There was a deviation of the end of the septum to the right, which was of interest in view of the general agreement that nearly all deviations were acquired, and that most of them were traumatic.

Abstracts from Current Literature.

Diseases of the New-born.

Some reflexes in the fœtus (*Arch. Brasil. de Med.*, 1917, VII, p. 325).

—**I. Malaguerta** refers to Krabbe's paper (v. BRITISH JOURNAL OF CHILDREN'S DISEASES, 1913, x, p. 225), and records the following observations of his own on a five months' male fœtus which died half an hour after birth: (1) Contrary to what occurred in Krabbe's case, the fœtus showed a slight Babinski's sign. (2) The abdominal reflexes were present, as in Krabbe's case, and were more marked on the right side. (3) The knee-jerk, which was only investigated on the left side, was not present just as in Krabbe's case. The fœtus also presented the reflex of defence and spinal automatism.

J. D. ROLLESTON.

The chlorine content of the blood in new-born infants (*La Pediatría*, 1917, xxv, p. 641).—**S. Cannata** draws attention to the lack of observations on this subject, although much has been done in the study of chlorine metabolism in normal and pathological conditions. Such researches might give interesting results in morbid states associated with the presence of cedema and in other dyscrasiæ. Rogée and Fritsch's method of estimation was followed, giving the chlorine per 1 c.c. of blood. Out of twelve infants from 1 to 5 days' old, Cannata found that during the first twenty-four hours of life the chlorine varied from 0.392 to 0.434 grm. per cent.; from the first to the fifth day between 0.392 and 0.400 per cent.—average 0.420 per cent.

VINCENT DICKINSON.

A child weighing 25 lb. at birth (*Journ. Amer. Med. Assoc.*, 1916, LXVII, p. 950).—**D. P. Belcher** records the birth of a female child which weighed 25 lb. The mother was a multipara, aged 35 years; height, 5 ft. 7 in.; weight, 15 st. 10 lb.; circumference at hips, 50 in. Considerable difficulty was experienced in delivering the shoulders, which measured 12 in. across. The child was 28 in. in length and perfectly formed, but was born dead. Only a slight laceration of the perinæum occurred.

T. R. WHIPHAM.

Congenital skin defects (*Amer. Journ. Dis. Child.*, 1917, xiv, p. 113).

—**I. A. Abt.**—Most of the recorded cases deal with skin defects of the scalp, which vary in size from a pin-point to a small coin. They are usually circular in shape, sometimes oval or irregular, and generally have clean-cut edges. The areas may be generalised as in Emanuel's case (*vide* BRITISH JOURNAL OF CHILDREN'S DISEASES, 1906, III, p. 64). The defects are usually visible at birth, and undoubtedly originate *in utero*. They present ulcerated areas which affect both layers of the skin. The subcutaneous tissues are not involved. Unless the defect is extensive there is no reason why the malformation should be incompatible with the life and general health of the infant. The majority of lesions tend to cicatrise in a short

time. Abt records a personal case where the infant presented a defective skin area over each knee. Within five or six weeks the denuded red areas were replaced by slimy white patches. The healing process was complete, and the baby appeared normal in every respect.

J. D. ROLLESTON.

Periumbilical cutaneous agenesis; appendicectomy twelve hours after birth; recovery (*Arch. de Méd. des Enf.*, 1917, xx, p. 393).—**M. Vargas.**—The umbilical and periumbilical region instead of being covered by normal skin presented a covering of whitish substance of gelatinous appearance identical with that forming the umbilical cord, which was attached to its lower end. During the operation for the repair of the defect the intestine became herniated and the appendix was removed. Complete recovery took place. Vargas has seen four other cases of congenital defect of the skin. In the first the skin stopped at the posterior axillary line, and all the anterior part was formed by a gelatinous membrane which broke at birth exposing the liver, stomach, and intestines. Operation was refused and death occurred in forty-eight hours. In the second case a white membrane formed the centre of the abdominal wall. Death from broncho-pneumonia occurred six days after operation. In the third case the infant, who lived only fifteen hours, presented a hernia, containing the liver and intestines, extending from the xiphoid cartilage to 5 cm. above the symphysis. The fourth case, which died a few hours after birth, presented a zone of aplasia of the abdominal wall.

J. D. ROLLESTON.

Multiple congenital malformations in a still-born fœtus (*Riv. di Clin. Pediat.*, 1916, xiv, p. 419).—**G. Funaioli** describes a case in a twin, the other being complete and well formed and living for nine days, but small, weighing only 1994 kgrm., in comparison with the 2816 kgrm. of the case in point. The fœtus consisted of a body with an upper extremity shaped like a sugar-loaf, flattened from before backwards, and covered with a slight lanugo limited to the right side. On the anterior aspect, but a little towards the left side, there was an irregular, triangular fold, having a valvular aperture at its base into which a probe passed 5 cm. At the sides of this fold, but irregularly placed, there were four superficial cutaneous folds, the whole resembling a wolf's snout. There was no trace either of nose or eyes. This upper extremity was continuous below with the rest of the body, the abdomen being indicated by the umbilical cord. There were no rudiments of upper limbs or mammæ. The lower half of the body was normal as regards the nates, external genitals of female type, thighs, and legs. The right foot was reduced to a simple excrescence the size of a pea, while the extremity of the left leg ended in a rounded appendix, flexed on the posterior aspect of the leg. The birth was normal and at term; both parents were healthy and robust. Autopsy showed no trace of division between the thoracic and abdominal cavities. The heart was the size of a pea. The skull was reduced to a mere bony cavity, while small, reddish, formless masses occupied the position of the abdominal organs.

VINCENT DICKINSON.

Congenital obliteration of the bile-ducts (*Amer. Journ. Dis. Child.*, 1916, xi, p. 405).—**J. B. Holmes** states that this is not an extremely rare condition. Over 100 cases have been reported, to which he adds a personal case. Accumulating evidence tends to show that the condition is usually a developmental anomaly and not the result primarily of inflammatory processes. In at least 16 per cent. of all reported cases the anatomical relations

were such that operative relief was theoretically possible. Holmes recommends that as soon as the diagnosis is established an artificial passage for the bile to the duodenum should be made in suitable cases. When this cannot be done at the time of the operation, an external outlet for the bile should be provided and a repair operation attempted later. Meanwhile the child's nutrition should be maintained by administration, if necessary, of bile or bile salts.

J. D. ROLLESTON.

Congenital occlusion of the bile ducts (*Amer. Journ. Obst.*, 1916, LXXIV, p. 521).—**J. Foote** and **R. Hamilton** report a case in which the jaundice began after maternal nursing was started on the fourth day. After the first week the stools became white and remained so. Death took place at the age of 6 months. Necropsy: Liver dark green with granular surface. Gall-bladder walls very much thickened. Cystic duct dilated from about 1 cm., then becoming cord-like. Common bile duct replaced by connective tissue. Hepatic duct absent. Microscopically the liver showed biliary cirrhosis. The pancreas was normal. The writers think the condition is more common than is supposed, as the increases in the number of cases is greatest when routine autopsies are done. They recommend the use of the urobilogen test and the Hess duodenal catheter as aids in the diagnosis. They regard the condition as purely developmental and not inflammatory.

J. D. ROLLESTON.

Familial icterus of new-born infants (*Amer. Journ. Dis. Child.*, 1917, XIII, p. 231).—**I. A. Abt.**—This condition was first described by Pfannenstiel in 1908. The cause is unknown. It is not present at birth, but appears during the first days of life. The disease may occur in successive pregnancies. It begins usually on the first or second day of life and rapidly increases in severity. The stools are catarrhal and frequent and the urine contains bile pigment. The patient may show meningeal irritation with characteristic crying and whining. At the onset there may be hyperæmia of the skin. If the disease continues hæmorrhages from the various mucous surfaces and into the skin as well as from the umbilicus occur. Death follows soon after from collapse. Atonic convulsions, especially of the upper extremities, as well as opisthotonos are frequent. The familial form is not frequent, for the disease has nothing to do with chronic family jaundice, which may be present at birth and may persist throughout life, and is constantly accompanied by enlargement of the spleen. It must also be distinguished from congenital obliteration of the bile-duct, which is characterised by intense obstructive jaundice. Necropsies have shown a peculiar icteric discoloration of the larger nuclei in the basilar portion of the brain and a yellowish discoloration of the nuclei in the medulla. This has been described as unclear icterus (*keruikterus*). Abt records personal cases occurring in two families. In the first family of five children three died, the third and fourth on the third and the fifth on the fourth day. In the second family of six children the fourth and fifth both died on the third day. The sixth child developed progressive jaundice and enlargement of the liver on the second day but recovered.

J. D. ROLLESTON.

Hæmatemesis and melæna neonatorum (*Dublin Journ. Med. Sci.*, 1917, II, p. 55).—**B. Solomons**, at the Royal Academy of Medicine in Ireland, Section of Obstetrics, read notes on a case of the above. The bleeding started on the day after the delivery, which was uneventful, and large amounts of red blood were passed by mouth and rectum. The

following points of interest were noted : (1) That the child was a female—the condition being supposedly more common in males. (2) The fact that ice-cold water, which is recommended in these cases, causes great pain ; while, when the chill is removed, hæmorrhage does not recommence and there is no more pain. (3) That starvation can be sustained for so many days (six in this case). (4) That the cure in this case was effected by good nursing, warmth, quiet, water, a mixture of adrenalin chloride and calcium lactate, and the injection of horse-serum ; that the baby became worse when the serum was temporarily stopped, and improved when administered again ; that large doses of serum give better results than small, and that, when given hypodermically or by the mouth, the result seems to be the same ; that, while no anaphylaxis was noticeable in this case, the physician should always be ready for this phenomenon, for which the best treatment is pituitary extract in small doses. (5) That it was possible that the ulceration in the gastro-intestinal tract was caused by some toxin carried from the mother to the child while still *in utero*.
J. ALLAN.

Hæmatoma of the umbilical cord at childbirth, with severe hæmorrhage following double ligature of the cord (*'Practitioner,'* 1917, xcviii, p. 389).—P. R. COOPER, in order to stop the hæmorrhage after a double ligature had failed, passed a ligature in the form of a triangle round the navel subcutaneously and tied the end of the ligature at the right-hand corner of the triangle to the other end at the apex. The hæmorrhage then ceased.
F. R. B. ATKINSON.

The importance of an eye-ground examination in infants after difficult delivery with or without the aid of instruments (*'Amer. Journ. Obst.,'* 1917, lxxvi, p. 904).—J. A. KEARNEY states that one of the earliest signs of the existence of increased intracranial tension is determined by a direct-method ophthalmoscopic examination of the fundus. With an ordinary amount of intracranial hæmorrhage, a mild, œdematous blurring of the upper and lower margins of the disc and the nasal half of the disc and its margins may be seen in the first few days after birth, and, later, an œdematous blurring of the entire surface of the nerve head and all its margins, especially on the nasal half of the disc. When massive intracranial hæmorrhage occurs, gross œdematous changes may be seen quite early. If, at the same time, there is an increase in the cerebro-spinal tension on lumbar puncture, a simple decompression operation would be indicated. All suspected infants as soon as possible after birth should have an ophthalmoscopic examination and a lumbar puncture made ; 1387 patients with spastic paralysis, with or without mental impairment, whose ages ranged from 1 day to 20 years, had their fundi examined, and of these 287 showed distinct œdematous changes or œdema in the regressive stage, and were operated on, with a mortality of 29 or about 10 per cent. Only 39 of those operated on were not first children ; only 11 were not full-term babies ; only 27 were not born with difficulty ; only 61 did not have convulsive twitchings after birth, and in only 38 was the spasticity noticed before the eighth month after birth.
J. D. ROLLESTON.

Serum treatment of hæmorrhage of the newly-born (*'Med. Journ. Austral.,'* 1916, ii, p. 273).—E. LUDOWICI.—Within forty-eight hours of the birth of an apparently normal infant the caput began to enlarge and a large tumour formed. Blood oozed from the umbilicus and mucosæ of the

nose, mouth, and anus. Subcutaneous hæmorrhages also appeared. On the third day 10 c.c. of the mother's blood was removed and allowed to clot. The serum was then injected into the subcutaneous tissues of the infant's abdomen. A few hours later the child began to revive, and the hæmorrhages ceased. A second injection was given next day, and the child made a perfect recovery.

J. D. ROLLESTON.

The treatment of gastro-intestinal hæmorrhages in the new-born ('*Thèses de Paris*, 1916-17, No. 11).—**L. Triollet**.—The thesis contains the histories of ten cases illustrating the method adopted at the Clinique Tarnier in Paris. The principles of this treatment are as follows: (1) Complete abstinence from food for two or, if necessary, three days. (2) Subcutaneous injection in the subscapular region of perfectly sterile gelatinised serum; for an infant of average weight the doses should be 20 c.c. daily while the hæmorrhage lasts. (3) Injection of 1 grm. of calcium chloride in the form of a 1 in 100 solution given in teaspoonfuls every two hours. (4) Keeping the child warm by hot bottles and a constant temperature in the room (64.4° F.) If no result is obtained from this treatment in the course of forty-eight hours, the child should be given specific treatment even if it appears free from syphilis. The specific treatment usually adopted at the Clinique Tarnier is mercurial inunction.

J. D. ROLLESTON.

Hæmorrhagic disease in the new-born treated by direct transfusion ('*Arch. of Ped.*, 1917, xxxiv, p. 771).—**J. H. M. Knox**.—On the third day of life an infant vomited much bloody fluid and passed several tarry stools: 50 c.c. of mother's blood was received into 60 c.c. of sodium citrate solution; 15 c.c. of this was introduced into the longitudinal sinus and the rest in small quantities intramuscularly into the buttocks. Complete recovery took place.

J. D. ROLLESTON.

Whooping-cough in the infant and new-born ('*Le Nourrisson*, 1917, v, p. 344).—**G. Railliet** records a family epidemic. The son, aged 3½ years, fell ill with whooping-cough on December 5 and died on the 14th. The daughter, aged 20 months, also contracted the disease on December 5 and died on the 23rd. On the 14th the mother, who was eight and a half months pregnant, gave birth to a female infant, and a few days later had a typical attack of whooping-cough, although she stated that she had previously had an attack in childhood. She suckled the infant, who began to cough in her turn, and on the 20th showed disseminated bronchitis. Paroxysms soon developed, which, though incomplete, were undoubtedly of the nature of pertussis, consisting of almost silent subintractant expiratory movements, then a respiratory pause with jerking of the trunk and head, cyanosis, opening of the mouth and grimaces. In the interval between the attacks there was a bronchitic cough. The infant died on December 28, when it was just a fortnight old (*cf.* BRITISH JOURNAL OF CHILDREN'S DISEASES, x, p. 534).

J. D. ROLLESTON.

The pneumococcus found in a case of still-birth ('*Journ. Amer. Med. Assoc.*, 1917, lxxviii, p. 843).—**E. L. Cornell** reports the case of an apparently normal child who died at birth before artificial delivery could be accomplished. At the autopsy nothing was found except that all the serous cavities contained an excess of fluid. The pericardial effusion yielded a pneumococcus and a Gram-positive bacillus, and the pleural a pneumo-

coccus and a staphylococcus. The Wassermann reaction was negative in both the baby and the mother, but cultures from the tonsils and vaginal discharge of the latter showed the pneumococcus and staphylococcus in each. The woman had previously had a still-birth at full term, and it was stated that that child had a nasal discharge.

T. R. WHIPHAM.

On a small epidemic of pneumococcal infection in the new-born (*'Arch. de Méd. des Enf.'* 1917, xv, p. 88).—**Mlle. Condat** records three cases which occurred in the maternity ward of a hospital. The pneumococcus was found in the blood in all the cases. In two there was a meningeal localisation, and in one broncho-pneumonia. The duration of the disease in the three cases was six days, four days, and barely twenty-four hours respectively. The cause of the epidemic was obscure, as the mothers were healthy and the labour normal.

J. D. ROLLESTON.

Meningococcus meningitis in the new-born (*'Arch. of Ped.'* 1917, xxx, p. 824).—**D. J. Milton Miller** reports a case in an infant aged 2 weeks. The following features were of interest: (1) The onset with conjunctivitis mistakenly regarded as gonorrhœal. (2) A bullous eruption on the abdomen and thighs in the second week of the disease. (3) The prolonged latent period before signs of meningitis were apparent (fourth week). (4) The character of the spinal fluid (xanthochromia and massive coagulation). (5) The large number of punctures of the fontanelle with no apparent ill-effects beyond vomiting. (6) The sclerema condition of the skin persisting throughout the attack. (7) The apparent improvement in the clinical symptoms and cerebro-spinal fluid after the tenth injection with subsequent return of acute symptoms and death.

J. D. ROLLESTON.

Acute meningitis in the new-born (*'Arch. de Méd. des Enf.'* 1917, xx, p. 404).—**Mlle. Condat** refers to Herrman's paper (*vide* BRITISH JOURNAL OF CHILDREN'S DISEASES, 1916, xiii, p. 307), and records three personal cases, one of which was of streptococcal and the rest of pneumococcal origin. Acute meningitis is not very rare in the new-born, but is apt to be overlooked. The signs are often slight or absent, and are masked by those of the general infection. Fever may be the first manifestation, but in Herrman's case the temperature was subnormal. Digestive disorders may be observed, such as vomiting, constipation, and diarrhœa. Prominence of the fontanelle and cervical opisthotonos are valuable symptoms. Rigidity and convulsions complete the clinical picture and necessitate lumbar puncture.

J. D. ROLLESTON.

Maternity and child welfare schemes: responsibility of local authorities under the Notification of Births (Extension) Act, 1915 (*'Glasg. Med. Journ.'* 1917, i, p. 321).—**A. K. Chalmers** divides the work into three periods—ante-natal, middle and post-natal, and gives an account of what is being done in Glasgow. The three elements of the ante-natal scheme would be (a) weekly clinics in several areas; (b) home visitation for those unable to attend; and (c) beds to be made available to both groups where necessary. The provision by the municipality of beds for this purpose may be assumed not to require consideration until it has been ascertained to what extent, if at all, the beds in voluntary hospitals fall short of the need. Associated with these, in time, one would hope to see a rescue home established for the mothers of illegitimate children. Between the ante-natal and post-natal period there lies the period of confinement, which is, at the

moment, probably sufficiently provided for by existing accommodation in the Maternity Hospital, but in any case can only properly be considered when the Midwives Act has come into operation and more is known of the 400 or more midwives at present in practice. With regard to the post-natal period, here again the work can be grouped in sections—clinics for nursing mothers and children, beds for both, and a system of home visitation when ill-health prevents the mother's attendance at a dispensary. One here again looks to the possibility of the Maternity Hospital, Sick Children's Hospital, and Cottage Nurses' Home, Govan, forming units in a system of clinics, the others being developed alongside our existing consultations. In all cases, however, it is desirable that beds should be provided which would admit two groups of patients—(a) nurslings with their mothers, and (b) infants who are artificially fed, and might be separated from their mothers. As a considerable number of both groups might have suitable home accommodation, the system of visitation already indicated for the ante-natal period might be organised for infants during the post-natal period, until the children were past the period of nursing. After this they will come under the machinery which will require to be devised for the ages 1–5, in connection with which it may be hoped that the existing Day Nurseries and the Fresh-Air Fortnight Association will become centres in a more fully developed scheme. Tabulations representing the work for the reduction of infantile mortality now being carried out by the Corporation of Glasgow, and the proposed extensions under the recent Act are appended.

J. ALLAN.

On eugenics limited to the care of pregnant woman, advocating expectant mother hospitals and special dispensaries (*Dub. Journ. Med. Sci.*, 1917, II, p. 352).—A. Smith said pregnant women were divided into two classes: (1) Expectant mothers living in healthy surroundings getting sufficient food; (2) expectant mothers living in unhealthy surroundings getting insufficient food. The first class he dealt with generally. The second class requires ample food and rest as the first step in the direction of successful treatment of the unborn infant must be the successful treatment of the pregnant mother. The problem might be solved by means of expectant mother hospitals and special dispensaries, which should be endowed by the State. It is just as essential to nourish the infant through the mother as it is to feed the baby after birth.

J. ALLAN.

Diseases of Respiratory System.

A study of the topography of the pulmonary fissures and lobes in infants with special reference to thoracentesis (*Amer. Journ. Dis. Child.*, 1916, XIII, p. 579).—J. C. Gittings, G. Fetterolf, and A. G. Mitchell.—The observations were based on dissections of formaldehyde-hardened bodies of fourteen infants aged from 6 weeks to 15 months. The conclusions were as follows: (1) The fissures of the lung in infancy show practically the same relation to the bony framework of the chest as in adults. (2) The origin, course, and termination of the fissures vary greatly in different individuals. (3) The variations do not apparently depend on any of the anatomical characteristics of the chest. (4) The lower level of the lungs in infants and probably in young children does not extend quite so low as in adults. (5) For this reason and owing to the anatomical characteristics of the bases of the pleural cavities in early life, great care should be taken to avoid damage to the diaphragm in performing thoracentesis.

(6)*The sixth interspace in the mid-thoracic line and the seventh, and possibly the eighth interspace, in the line of the angle of the scapula (at rest) represents the lowest limits of absolute safety for thoracentesis in early life.

J. D. ROLLESTON.

Clinical notes on the radiography of the thorax in children ('*Edin Med Journ.*,' 1916, I, p. 355).—J. S. Fowler deals with radiography of the thorax in pericardial effusions in children. Notes on the following four cases are given: CASE 1.—Male. Congenital (?) murmur detected at $2\frac{1}{2}$ years; acute pericarditis with large effusion at 4 years; radiograph positive; very little constitutional or circulatory disturbance; rapid recovery; disappearance of bruit. CASE 2.—Male, aged $1\frac{8}{12}$ years; left-sided pneumonia; small localised right empyema cured by aspiration; signs of pericarditis confirmed by radiograph; pericardium drained; great improvement; subsequent development of empyema on left side; drainage; death three weeks later. CASE 3.—Male, aged 4 years; pneumonia; serous pleurisy, going on to empyema; operation with good result *quâ* empyema; lung expanded and discharge almost ceased; but general condition and state of pulse suggested involvement of pericardium; radiograph negative; post-mortem a week later showed pericarditis. CASE 4.—Female, aged $6\frac{4}{12}$ years; acute pneumonia; radiograph negative on eighth day, though physical signs well marked; crisis on tenth day. The author points out that it is not suggested that in acute pneumonia opacity is usually absent; in many cases a well-marked shadow is formed. But the two cases illustrate the fact that with well-marked signs of pneumonia the lung may remain transparent to the X rays, whereas it is probable that pleural exudates, even if clinical evidence shows that they are small (*cf.* BRITISH JOURNAL OF CHILDREN'S DISEASES, 1916, XIII, p. 220) always give a definite shadow. Several excellent photographs are included.

J. ALLAN.

Congenital absence of lung ('*Amer. Journ. Med. Sci.*,' 1917, CLIV, p. 33).—A. G. Ellis.—This is a rare condition, only eighteen cases having been recorded, to which Ellis adds the following: A boy, aged 8 years, was admitted to hospital with acute rheumatism, endocarditis, and pericarditis. There was marked dulness in the back over the left lung and no back sounds audible at the base. Above the root of the lung there was tubular breathing. The right lung was normal except for exaggerated breath-sounds. The autopsy showed absence of the left lung, the right lung extending well beyond the left costo-chondral line. The upper lobe was approximately twice the usual size. A projection to the left from the upper extremity formed a second apex. At the lower margin of the upper lobe was a projecting tongue forming a rudimentary lobe. Of the 19 cases of absence of the lung, 13 were of the left, 6 of the right. Interference with the blood-supply in early embryonic life is supposed to be the cause in all cases. The condition has not yet been diagnosed during life and found on autopsy. The duration of life is usually short, but the condition is not incompatible with adult life.

J. D. ROLLESTON

D'Espine's sign in childhood ('*Amer. Journ. Dis. Child.*,' 1916, XI, p. 276).—J. L. Morse examined 666 children, aged from 1 to 12 years, in his private practice, and found this sign present in only 40 cases, or 6 per cent., thus showing that it is uncommon in the wealthy and well-to-do classes. It was very seldom found before 5 years, was commonest between

8 and 9 years, and its frequency diminished thereafter. In 18, or nearly 50 per cent., the enlargement was probably not tuberculous. In 9 it probably was tuberculous, and in 13 there were no data pointing one way or another. D'Espine was, therefore, wrong in his calculation that the sign was always a manifestation of tuberculosis of the bronchial glands. The sign simply means that there is some tissue between the trachea and bronchi and the vertebral column, which transmits the bronchial sound unchanged, whereas normally it is altered in its transmission (*cf.* BRITISH JOURNAL OF CHILDREN'S DISEASES, 1916, XIII, p. 216).

J. D. ROLLESTON.

Asthma in children: its relation to anaphylaxis (*Boston Med. and Surg. Journ.*, 1916, CLXXV, p. 191).—F. B. Talbot concludes that a definite ætiological connection may be established between most cases of asthma and some foreign protein by the skin test. If an individual is sensitive to one protein, he is also apt to be sensitive to other proteins. The large number of cases with family histories of asthma or food idiosyncrasies makes it seem probable that there is a hereditary predisposition to sensitisation. Information given by the skin test is of inestimable value in outlining the treatment of the case, and with the use of this information, marked improvement or cure often follows. Further study will undoubtedly add to our knowledge of asthma and its allied diseases, and will still further modify our conception of the processes involved.

MACLEOD YEARSLEY.

Two cases of primary tumour of the anterior mediastinum (*Riv. di Clin. Pediat.*, 1917, xv, p. 113).—G. Guidi reports two cases aged 7 and 5 years. At first a diagnosis was not possible, but subsequently percussion of the anterior region of the thorax disclosed the presence of a mass occupying the highest part of the anterior mediastinum. At this point the diagnosis seemed to lie between enlarged glands and tubercular adenopathy—there being some pleuritic effusion in both the cases. The discovery of a dull zone in the right paravertebral area and a positive reaction to tuberculin in the second case favoured this view. But the progressive and rapid increase in size of the mass, beyond that usually observed in tubercular adenopathy, its limitation to the anterior mediastinum, the result of radioscopy, marked enlargement of the glands in the neck and axilla, and finally, with the course of the disease, prominence of the sternum and anterior part of the thorax excluded any other hypothesis than that of a primary neoplasm. In both cases autopsy showed that the tumours developed in the anterior part of the mediastinum in a rounded form flattened from front to back. They were not continuous with the posterior mediastinum, and caused no evident lesions in the bronchi, trachea, or large vessels. They had invaded, however, and covered a large portion of the pericardium with extension in the first case to the left pleura and tendency to diffusion in the intercostal muscles. In the second case, there were small nodules on the anterior part of the right pleura. The mass was, in the first child, uniform, pale in colour, and soft; in the other, irregularly lobulated, resistant, elastic, and ivory-yellow in colour, disseminated here and there with small dry friable nodules. In both cases the size of the growth was about 10 by 12 cm. Histologically, the tumours were sarcomata, or more precisely, lympho-sarcomata, with a reticular supporting tissue, scanty in the first case and abundant in the second, with metastases to the pleura, intercostal muscles, left cervical and axillary glands, mesenteric glands, pancreas, and kidneys in the first case; with invasion of the peri-

cardium and metastases to the pleura, peribronchial, periaortic, and retroperitoneal glands, kidneys, and liver in the second case. As to the origin of the tumours: In the first case, the soft consistence, homogeneous aspect, and its extension immediately under the sternum suggested its origin from the thymus, and this was confirmed by discovery of remains of thymus tissue with characteristic Hassall's corpuscles. In the second case, the site of the tumour outside the thymic region, its hard consistency, lobular surface, tendency to invade the posterior mediastinum, and the absence of residual thymic tissue pointed to an origin from some gland in the anterior mediastinum.

VINCENT DICKINSON.

1 monoc empyema (*'Amer. Journ. Dis. Child.,'* 1916, XI, p. 33).

—**L. Gerdine** reviews the literature and relates six personal cases in children, aged from 6 months to 4 years, in whom fluid was obtained by puncture just before the crisis. The six cases occurred among fifteen cases of pneumonia or broncho-pneumonia in children. Five of the six fluids were opaque and yielded a large clot. Cultures of the fluid were sterile. In all five cases the fluid was absorbed spontaneously, as was shown by later punctures and skiagrams. The clinical course of the disease was more noticeably affected by the presence of new fluids. In the six cases about 5 c.c. was removed by puncture on the second day of disease, containing cocci in diplo and double-chain form. The group of pneumococci to which the organism belonged was not determined. The pleural cavity was drained, but death occurred in a few days. No necropsy.

J. D. ROLLESTON.

Two cases of interlobar empyema cured by simple puncture (*'Arch. de Méd. des Enf.,'* 1916, XIX, p. 317).—**E. Gorter.**—**CASE 1:** A female infant, aged 15 months, developed interlobar empyema following broncho-pneumonia due to measles. Pus containing pneumococci was obtained on aspiration, and within a week the child had almost recovered. When seen three months later she was quite well. **CASE 2:** A child, aged 5 months, in the course of whooping cough developed broncho-pneumonia, which lasted a fortnight. A month later a right empyema developed 80 c.c. of pus containing staphylococci was evacuated, and three weeks later 10 c.c. of pus still containing staphylococci. After the second puncture the temperature fell and recovery took place.

J. D. ROLLESTON.

Types of pneumococcus found in the pneumonias of infants and young children (*'Amer. Journ. Dis. Child.,'* 1916, XII, p. 254).—**M. Wollstein** and **A. W. Benson**, on a series of fifty cases of pneumonia in young children on examination of the sputum, found the Type 4 pneumococcus comparatively frequent (60 per cent.) with a high mortality (40 per cent.). Pneumococci of Types 1 and 2 were present in a higher percentage of lobar pneumonias than of broncho-pneumonias; the mortality Type 1 cases was 83 per cent., and of Type 2 cases 33 per cent. These figures are much higher than in lobar pneumonia cases in adults (*cf. BRITISH JOURNAL OF CHILDREN'S DISEASES*, 1915, XII, p. 80).

J. D. ROLLESTON.

Acute lobar pneumonia of the right apex of meningeal form in a child of 18 months (*'Le Nourrisson,'* 1916, IV, p. 295).—**M. Laverigne.**—A hitherto healthy child was suddenly seized with high fever followed by

convulsions. On admission to hospital two days later it presented marked nuchal rigidity, Kernig's sign, and slight hyperæsthesia. Lumbar puncture gave issue to a clear fluid under hypertension, showing lymphocytosis but no micro-organisms. The following day signs of lobar pneumonia of the right apex were discovered. The temperature became normal on the seventh day, and recovery was uneventful.

J. D. ROLLESTON.

Migratory pneumonia in children ('*Arch. Españ. de Ped.*' 1917, i, p. 80).—A. R. Lozano.—Migratory pneumonia is that form of pneumonia in which the process is at first localised to one lobe of the lung and then extends until the whole lung is invaded. Among 65 cases of pneumonia in children of all ages, Lozano met with 7 such cases, none of whose ages were above 3 years or below 1 year. The disease is caused by the pneumococcus and possesses the general characters of the ordinary lobar form, although its duration is always longer. The total course of the disease in Lozano's cases ranged from nine to seventeen days. It is not at present known if the condition is due to a greater virulence of the pneumococcus or diminished resistance of the subject, or to some unknown cause. Apart from meningeal reactions which should not be regarded as complications, Lozano had a case of pneumococcal angina which preceded the pneumonia, an amicrobial, parapneumonic pleurisy, and another case of pleurisy at the end of the pneumonia—both of which disappeared without operation—and a case of double otitis. Although the complications were thus more frequent than in ordinary pneumonia, the prognosis could not be regarded as grave as all the seven cases recovered.

J. D. ROLLESTON.

A case of pneumonia of unusually short duration ('*Amer. Journ. Dis. Child.*' 1917, xiv, p. 296).—H. B. Conrad.—A boy, aged 3 years, has suddenly taken ill with headache, vomiting, high fever, and rapid respiration at 6 a.m. At 10 a.m. the temperature was 103·6° F., pulse 144, respiration 44, and leucocytes 38,900. Apart from a dull percussion-note and distant breath-sounds at the site of an old empyema there were no physical signs in the chest, either at 10 a.m. or 8 p.m. Defervescence occurred by crisis at midnight. A skiagram taken the following day showed a triangular area of consolidation peripherally located in the upper part of the left lung. Complete recovery took place.

J. D. ROLLESTON.

Unresolved pneumonia ('*Arch. of Ped.*' 1917, xxxiv, p. 686).—J. H. Hess, as the result of observation of twenty-two cases, comes to the following conclusions: (1) Tuberculosis is frequently a complicating, if not the primary factor, in many of the fatal cases, and unquestionably frequently a factor in delayed resolution in cases which recover. (2) Empyema, especially of the interlobular type, must be excluded. (3) Rare factors, e.g. syphilis, foreign body, and new growths must not be forgotten. (4) The diagnosis of non-tuberculous interstitial pneumonia should only be made after excluding all other conditions.

J. D. ROLLESTON.

Traumatic or contusional pneumonia ('*Clin. Journ.*' 1916, xlv, p. 241).—F. Parkes Weber.—Probably in the more favourable cases there is less expectoration than in ordinary pneumonia. Early hæmoptysis due to mechanical injury of the lung is found in some cases. External bruising is often present, but may be absent altogether. A crisis may occur, as in

typical pneumonia. Recovery is the rule, but the proportion of fatal cases is considerable. The author records, among others, several illustrative cases in children aged from 2 to 14 years.

J. D. ROLLESTON.

Massive right lobar pneumonia, rapidly fatal (*Arch. de Méd. des Enf.*, 1917, xx, p. 25).—**J. Comby**.—Lobar pneumonia is generally a mild affection in children, and presents a very low mortality, so that the following case is of some interest. A girl, aged 5 years, who had been coughing for some days, was suddenly seized with shivering and severe pain in the right side of the abdomen, which was at first mistaken for appendicitis. Intense dyspnoea set in, and death took place twenty-four hours from the onset. Post-mortem: the whole of the right lung formed a solid block.

J. D. ROLLESTON.

The effect of cold air on the blood-pressure in pneumonia in childhood (*Amer. Journ. Dis. Child.*, 1916, xii, p. 445).—**J. L. Morse and D. M. Hassman**.—The cold-air treatment of pneumonia in children was first advocated by Northrup (*v. BRITISH JOURNAL OF CHILDREN'S DISEASES*, 1907, iv, pp. 32 and 314). Howland and Hoobler (*ibid.*, 1912, ix, p. 476), attributed the success of the treatment to a rise of blood-pressure, but their results were not confirmed by Freeman or Cunningham (*ibid.*, 1917, xiv, pp. 228, 229.) As the result of 387 observations on thirty-two cases of pneumonia in children aged from 2 to 10 years, Morse and Hassman came to the following conclusions: (1) There is no constant relation between the systolic, the diastolic, or the pulse-pressure and the severity of the pneumonia or the temperature of the surrounding air. (2) The rates of both the pulse and respiration vary directly with the temperature of the surrounding air. (3) The patients seemed to be more comfortable out of doors than in the house. (4) No conclusions are justified as to the effect of cold-air treatment on the mortality of pneumonia in childhood.

J. D. ROLLESTON.

Two cases of subcutaneous emphysema of pulmonary origin (*Riv. di Clin. Pediat.*, 1917, xxv, p. 294).—**G. Squarti** publishes two cases of 4 years and 3 months, the former due to diffuse bilateral tuberculous broncho-pneumonia, and in the latter were numerous enlarged peribronchial glands and emphysema of the mediastinum, while the pericardium, the tissue around the vessels, bronchi and trachea and œsophagus were all notably infiltrated with air. There was, moreover, capillary bronchitis and diffuse foci of broncho-pneumonia. A few Koch's bacilli were found. There was a strong syphilitic taint, but careful research failed to discover any spirochætes.

VINCENT DICKINSON.

Tuberculosis.

Miliary tuberculosis in the first weeks of life (*Riv. di Clin. Pediat.*, 1916, xiv, p. 449).—**A. F. Canelli** describes the case of a boy, aged 1 month, born at term, of a chronic tuberculous mother, and breast-fed. Very few similar cases are on record occurring in the first three months of life. The visceral pleura was covered in parts by a fibrinous exudation. Subacute bilateral catarrhal bronchitis. Lungs congested, finely granular to the touch. Section homogeneously studded with nodules, miliary or submiliary, round, prominent, opaque, dirty green or yellowish white. Caseous infiltra-

tion circumscribed to the antero-posterior edge of the middle lobe of the right lung. Thymus normal. Thyroid congested with a few miliary nodules on the external surface. A group of tracheo-bronchial glands showed signs of caseation and softening. Mediastinal glands congested, but free from signs of tubercle. A few submiliary nodules in liver, many in spleen; other organs free from tubercle.

VINCENT DICKINSON.

Pulmonary tuberculosis in the first two years of life (*Paris Méd.*, 1917, VII, p. 109).—**H. Barbier**.—From 1905–1913, 1856 infants in the first two years of life were admitted to Barbier's service at the Hôpital Hérold. Of the 770 fatal cases 261, or 34 per cent., were due to tuberculosis; 499 necropsies were made, and in 194 cases, or 39 per cent., tuberculous lesions were found. This shows that the incidence of tuberculosis is very high at this age, for by taking into account the autopsies and the cases in which the diagnosis could be established during life by laboratory methods, a total of 460 cases, or 25 per cent., is obtained among 1856 infants aged from 0 to 2 years. Barbier also discusses the occurrence of ulcerative pulmonary tuberculosis at this age, as is shown in the thesis of his pupil Aine (*v. BRITISH JOURNAL OF CHILDREN'S DISEASES*, 1916, xiii, p. 350).

J. D. ROLLESTON.

The incidence of bovine infection of tuberculosis in children (*Edin. Med. Journ.*, 1917, I, p. 178).—**Chung Y. Wang** reaches these conclusions: (1) A bacteriological investigation into 281 cases of various clinical forms of tuberculosis in Edinburgh conducted by various workers has resulted in the isolation of bovine tubercle bacilli in 80 out of 102 cases (78·4 per cent.) under the age of five years; in 45 out of 64 cases (70·3 per cent.) between five and sixteen years; and in 9 out of 115 cases (7·8 per cent.) above sixteen years. These percentages of bovine tuberculosis are considerably higher than those obtained in England and in other countries. (2) The most common fatal affections of tuberculosis in childhood, and especially in early infancy, are abdominal tuberculosis and tuberculous meningitis, and they, together, are responsible for about 90 per cent. of the summed mortality from tuberculosis in children under one year, and about 75 per cent. in children between one and five years. The material from 9 children dead from these two diseases was examined bacteriologically, and from 6 the bovine type of tubercle bacillus was isolated. (3) A large percentage of children in Edinburgh is fed wholly or partly on cow's milk, and in a great number of instances the milk is consumed raw. These two incidents, together with the high percentage of tuberculous cow's milk, give an explanation of the prevalence of abdominal tuberculosis in Edinburgh, and, further, would account for the infection in the 6 cases of abdominal tuberculosis and tuberculous meningitis from which bovine tubercle bacilli were obtained. (4) Children who were bottle-fed on raw cow's milk and also those fed on boiled cow's milk were tested with tuberculin; it was found that 37·5 per cent. of the first group of cases reacted, as against 15·4 per cent. of the second group. If the reaction be accepted as an indication of the presence of an infection in the body, the result, in a measure, affords corroboration of the bacteriological findings. (5) Having regard to the fact that in early childhood abdominal tuberculosis and tuberculous meningitis conjointly contribute the greatest share towards the total deaths from tuberculosis, and in view of the prevalence of bovine tuberculosis among the young subjects in Edinburgh, it follows that the very high incidence of

infection from the bovine source identified there involves a problem of real significance, and one which calls for close attention. From a prophylactic standpoint of view, any measure resorted to in combating the disease should, therefore, be directed not only against the human spread of infection, but also—and more particularly in the case of children—against the bovine source of infection. (6) Failing an adequate supervision of the milk supply, the most efficient way of safeguarding against the bovine type of tuberculosis is to subject all cow's milk for consumption to the process of sterilisation by boiling. (7) Lastly, it must be mentioned that the material submitted to the investigation was available from children of the poorer class, and the results arrived at should, therefore, not be considered as strictly applicable to the community in general, nor must they be taken to represent the conditions prevailing in other localities, where the environment might be widely different.

J. ALLAN.

Fever—the initial sign of tuberculous infection in infants (*'Arch. of Ped.'* 1916, xxxiii, p. 171).—**M. S. Reuben**.—Fever is the first sign of tuberculous infection in infants. The fever is of sudden onset, at first high (seven to fourteen days), is remittent, and gradually comes down by lysis, but not to normal; it continues slightly above normal, 100–101° F., for twelve to twenty weeks, with periods of complete apyrexia; exacerbations (two to three) of high fever of the same type as that of the onset usually occur. At the onset of the fever no physical signs are present. Fourteen per cent. of prolonged febrile conditions in infants diagnosed as influenza gave a positive von Pirquet's reaction. Possibly many other fevers of obscure origin are due to a reaction of the body to tuberculous infection. The tuberculin reaction, which usually becomes positive at the onset of the fever, should be performed on every infant who has an idiopathic fever without physical signs.

J. D. ROLLESTON.

Diagnosis of pulmonary tuberculosis in children (*'Med. Record'* 1917, xcii, p. 406).—**M. Fishberg** says that pulmonary tuberculosis of the same type as in adults is rare. (This is hardly in accordance with English experience.) Tuberculosis of the tracheo-bronchial glands in children is characterised by a croupy cough and progressive emaciation or by a failure to gain weight. The temperature may be continuous in progressive cases, reaching 104° F., remittent, or, in later stages, intermittent. It is found that many children with acute or chronic pharyngeal catarrh, enlarged tonsils and adenoids have fever for months. It is found that sweats due to phthisis occur after the child has been in bed from four to six hours, while in non-tuberculous children the sweats occur soon after the child has been put to bed. The pulse-rate is important. In progressive cases with high fever it may be over 120. In sluggish cases it is hardly ever below 100 per minute in children under seven and above 90 in older children. The apex is almost invariably found to be implicated, and there is dulness there and in the interseapular space. Crepitant or subcrepitant *râles* are heard, and these are rarely heard in the apical collapse due to enlarged tonsils and adenoids. The X rays are of value, but not all incipient lesions reveal themselves on the plate. Calcified and sclerosed glands give large shadows. X-ray findings without constitutional symptoms do not justify a diagnosis of phthisis.

CHRISTOPHER ROLLESTON.

Diagnosis of tuberculosis in children (*'Boston Med. and Surg. Journ.'* 1917, clxxvii, p. 138).—**H. D. Chadwick** and **R. Morgan** emphasise the

importance of symptoms indicating tuberculin absorption, viz. weakness, undue fatigue, fever, poor appetite, failure to gain or loss of weight, and nervous irritability. The local symptoms are cough, hoarseness, and occasionally blood-streaked sputum. The usual physical signs are dullness in the interscapular region radiating into the apices at the back, frequently not elicited in front. There may or may not be changes in the respiratory sounds. *Rôles* may or may not be present. Constitutional and local symptoms and a history of exposure are to be given greater weight in making a diagnosis of active tuberculosis than the presence or absence of physical signs. Percussion is more important than auscultation.

J. D. ROLLESTON.

A tuberculosis survey of an Alaska Eskimo village, using children under the age of 15 years as an index (*Med. Record*, 1916, xc, p. 663).

—H. C. Michie summarises his paper as follows: (1) More than 61.5 per cent. of the Eskimo children under the age of 15 are tuberculous in one of Alaska's cleanest villages. (2) Their environment is such that tuberculosis must increase amongst them. (3) They offer one of the greatest fields for medical missionary work. (4) From an hygienic standpoint their entire system of living is wrong. (5) The only source of relief seems to be the enactment of necessary legislation to prevent free traders from robbing the Eskimo of his small products and larger medical appropriations to the Bureau of Education for use in Alaska.

J. D. ROLLESTON.

Recurrent hilus infiltration (*Amer. Journ. Dis. Child.*, 1917, xi, p. 198).—H. Wessler and M. H. Bass.—This unusual form of tuberculosis in children is found between the ages of 2 and 8 and does not occur in infancy. In the vast majority of cases it occurs on the right side, and its point of predilection is the lung in the immediate vicinity of the fissure between the upper and middle lobes. The base of the lesion is at the hilus and the apex is near the axilla. The symptoms are general debility, loss of weight, slight cough, and night sweats. Physical examination is completely negative unless a considerable mass of lung tissue is involved. In such cases, with a positive von Pirquet reaction, X-ray examination is imperative, especially as the lesion is a curable one, provided appropriate treatment is followed. Two illustrative cases are recorded.

J. D. ROLLESTON.

Primary tuberculosis of the faucial tonsils in children (*Journ. of Path. and Bact.*, 1917, xxi, p. 248).—A. P. Mitchell.—This report was made to the National Medical Research Committee. The author considers that his investigation warrants the following conclusions: (1) Tuberculosis of the upper, deep, cervical glands develops from a primary focus in the faucial tonsils much more frequently than is generally supposed. (2) Primary tuberculosis of the faucial tonsils can be recognised only by the aid of the microscope and by inoculation experiments. The lesions are found in certain localities, namely, immediately under the surface epithelium and near the mouth of the lacunæ, in relation to the deeper portions of the crypts, or deep in the tonsil close to the capsule. The first-mentioned site supplied the greatest number of examples. (3) Hypertrophied faucial tonsils are the seat of primary tuberculosis, though rarely as compared with tonsils from cases of tuberculous adenitis. (4) The experimental results indicate that in Scotland, at any rate, primary tuberculosis of the faucial tonsils in children must be attributed to the drinking of milk from tuberculous cows,

rather than to the inhalation of human tubercle bacilli conveyed by dried sputum or the moist spray from the coughing of a consumptive patient. (5) Bovine and human types of tubercle bacilli are present in the tonsillar crypts of a small percentage of children without demonstrable tuberculous lesions either in the tonsils or elsewhere. (6) Tonsillectomy is essential in all cases of tuberculous cervical adenitis in children. (7) The prognosis is very slightly influenced in children in whom the faucial tonsils and cervical glands are simultaneously affected with tuberculosis. (8) The difficulties associated with the reform of the milk supply and the lengthened period which must elapse before it becomes possible to obtain a tubercle-free milk demand some means of rendering milk safe. The only immediate safeguard is to be had in the sterilisation by boiling of milk for the artificial feeding of infants and the nourishment of all children. MACLEOD YEARSLEY.

A case of tuberculous meningitis of unusually long duration ('*Practitioner*,' 1917, xcix, p. 390).—G. H. Hickling considers the child lived from the fourth to the ninth month suffering from this disease, which post-mortem examination revealed. F. R. B. ATKINSON.

A study of the blood in tuberculous meningitis ('*Amer. Journ. Dis. Child.*,' 1916, xi, p. 224).—E. A. Morgan made 252 counts on the 169 cases in the Babies' Hospital, New York, and came to the following conclusions: (1) The leucocyte count in tuberculous meningitis is higher than has hitherto been described. The average in his series was 20,900 per c.mm. with 72.6 per cent. polymorphonuclears. (2) The total leucocyte-count and the proportion of polymorphs vary with the stage of the disease, *e.g.* both counts increase as the disease advances. There is a relative but not absolute diminution of the mononuclears. (3) There is a definite relationship between the intensity of the tuberculin skin reaction on the one hand and the total leucocyte-count and polymorphonuclear percentage on the other. Diminution in the former is usually accompanied by an increase in the latter, both being evidence of a failing resistance by the body to tuberculous infection. J. D. ROLLESTON.

Tuberculosis of the pons ('*Arch. de Méd. des Enf.*,' 1917, xx, p. 355).—A. D'Espine and V. Demole record a fatal case in a boy aged 7 years. At the autopsy, in addition to generalised tuberculosis, two solitary tubercles were found in the pons, one situated in the right eminentia teres and the other in the fibres of the pyramidal tract. The first tubercle had almost completely destroyed the nucleus of the right sixth nerve and had considerably damaged the facial at the level of the genu. This lesion explained the occurrence of convergent strabismus and right facial palsy. The second tubercle had only separated the fibres of the pyramidal tract without doing them any considerable damage. The presence of this lesion was indicated by exaggeration of the reflexes and ankle clonus only, without hemiplegia. J. D. ROLLESTON.

Frequency of tuberculides in infancy and childhood and their relation to prognosis ('*Arch. of Ped.*,' 1917, xxxiv, p. 362).—T. C. Hempelmann studied 40 cases of tuberculosis in children showing papulo-necrotic tuberculides. Thirty of these were infants under 2 years, and the other 10 were between 2 and 12 years. Tuberculides occurred 30 times (23 per cent.) in a series of 130 cases of pulmonary tuberculosis; 62 were

in the first year of life, and of these 21 showed tuberculides; 68 were between 1 and 2 years, and 9 of these (13.2 per cent.) showed tuberculides. In all but 1 of the 40 cases there was evidence of lung or tracheo-bronchial lymph node involvement in addition to the tuberculides. Tuberculides seem to bear no direct relation to prognosis, as some children were still under observation who had shown tuberculides 3, 4, or 5 years ago.

J. D. ROLLESTON.

Tuberculosis following ritual circumcision (*Arch. of Ped.*, 1917, xxxiv, p. 186).—**M. S. Reuben**.—A infant was circumcised on the eighth day by a mohel, who aspirated the wound by means of a glass tube. The wound healed within a week. Five weeks after the operation a swelling was noticed in the right groin. On examination the glands in the right groin, and to a less extent those in the left groin, were enlarged. Four small tubercular masses were found on the anterior surface of the circumcision scar. Microscopical examination showed that the tissue was infiltrated with numerous tubercles and diffuse tubercular inflammatory tissue. The infant's von Pirquet reaction was positive. The lungs and spleen were not affected. The mohel was found to have advanced pulmonary tuberculosis, and his sputum was loaded with tubercle bacilli. Excision of the tubercular tissue of the penis and inguinal glands was recommended. A review of the forty-two cases recorded in literature is appended (*v. BRITISH JOURNAL OF CHILDREN'S DISEASES*, 1913, x, p. 557).

J. D. ROLLESTON.

Symmetrical tuberculous buboes in a girl aged 5 years (*La Med. de los niños*, 1917, xviii, p. 1).—**M. Vargas**.—The patient was brought to the dispensary with a foetid sero-purulent discharge from the vulva and enlarged, painless, glandular enlargements in both groins. Numerous tubercle bacilli were found in the discharge. Repeated examination of the sputum was negative. Infection is attributed to the fact that the child did not wear drawers and frequently dragged itself along the ground.

J. D. ROLLESTON.

The transmission of bovine tuberculosis to human beings (*Arch. of Ped.*, 1917, xxxiv, p. 137).—**M. P. Ravenel** refers to the work of A. P. Mitchell (*v. BRITISH JOURNAL OF CHILDREN'S DISEASES*, 1915, xii, pp. 115, 117, 340) and others, and states that in animals it has been conclusively proved that pulmonary tuberculosis can be easily produced both by feeding and by injection of tubercle bacilli into the stomach, producing this type of disease and the oldest lesions in this part of the body. It seems almost certain that the same thing may take place in children.

J. D. ROLLESTON.

The value of the von Pirquet test as controlled by autopsy findings (*Amer. Journ. Dis. Child.*, 1917, xiv, p. 47).—**J. H. M. Knox, jun.**—This study is based on necropsies performed on 324 children whose ages ranged from birth to 12 years. Sixty-eight cases were found to have tuberculous lesions post mortem. In 61 of these the von Pirquet test had been made, with a positive result in 45 and a negative in 16. The latter consisted of cases with rapidly advancing, widespread, miliary tuberculosis, pulmonary tuberculosis with cavity formation, tuberculous meningitis or peritonitis. Forty-four of the 68 cases were coloured and 24 white, and of the 7 fatal cases under 6 months, 5 were coloured and 2 white. This

supports the view that tuberculosis is more prevalent among the black than among the white races, and that infection occurs at an earlier period of life among the black. Of the 256 cases with no tuberculous lesions post mortem, the test had been made in 172 instances and was negative without exception. The writer concludes that von Pirquet's test is a most reliable aid in the detection of tuberculosis in children, that a positive reaction indicates invariably a tuberculous focus in the body, and that a persisting negative reaction establishes the fact that there is no tuberculous lesion except in those extremely ill patients where the presence of tuberculosis can readily be established by physical examination.

J. D. ROLLESTON.

Surgical tuberculosis and child-welfare (*Edin. Med. Journ.*, 1917, 1, p. 383).—A. P. Mitchell alleges that the prevalence of surgical tuberculosis amongst children may be summed up by saying that, though it cannot be expressed in exact figures, there is clear evidence that the disease is sufficiently prevalent to constitute a real danger to the community, and to urge the immediate necessity for some comprehensive and systematic attempt at prevention and cure. Such questions as those relating to poverty, improper feeding and housing must be faced. As a practical measure, tuberculin injections would appear to be of value in increasing the powers of resistance to the disease. Open-air schools are required for children who are definitely tuberculous, or come from tuberculous houses. The establishment of convalescent homes in the country for the adequate treatment of children affected by active tuberculosis is a much-felt want. The special care of children during convalescence from measles, whooping-cough, and other acute specific diseases is greatly to be desired. For the welfare of any community, large or small, the provision of a pure milk supply is of the utmost importance—clean milk of good quality from healthy cows and protected from contamination. The powers at present vested in our local authorities are inadequate. What is most wanted is a well-informed public opinion which will demand new and more drastic powers for the authorities, and insist upon these powers being exercised to their full extent. There are three clearly-defined methods by which children may be protected from the dangers of tuberculous cow's milk: (1) The elimination of tuberculosis from cows; (2) boil the milk; (3) the breast-feeding of infants.

J. ALLAN.

Otology, Rhinology and Laryngology.

Diseases of the ear, nose, and throat in relation to child welfare (*Edin. Med. Journ.*, 1917, 1, p. 422).—J. S. Fraser considers that diseases of the ear, nose, and throat have a very intimate relation to child welfare. Affections of the nose and throat may cause obstruction to breathing through the proper channels and thus interfere with suckling in infants and retard the bodily and even the mental development of older children. Diseases of the ear not only give rise to deafness, and so interfere with education, but not infrequently endanger the child's life. The author makes the following recommendations: (1) The treatment of the syphilitic mother before the birth of her child. (2) Health visitors should be instructed in diseases of the ear, nose, and throat. (3) Children who show signs of nasal obstruction or of deafness, or "running ears," should be taken to child dispensaries, where they should be examined by the specialist attached to the dispensary. Treatment of slight cases should be carried out at the dispensary by the specialist or by skilled nurses under his supervision. More severe cases

should be sent to special hospitals. (4) On coming to school all children should be examined as regards the condition of the ear, nose, and throat. The hearing of both ears should be tested. All cases showing any abnormality should be passed on for examination by the specialist attached to the school clinics. Teachers should call the attention of the school medical officer to any child whom they suspect to be suffering from an affection of the ear, nose, and throat. For this purpose the teachers should be instructed regarding these diseases. Treatment should be carried out either at the school clinics or at hospitals. (5) Specialists should be appointed to fever hospitals to look after cases of disease of the ear, nose, and throat occurring in the course of the infectious fevers. Children suffering from deafness and otorrhœa as the result of these diseases should not be sent home until they have thoroughly recovered. (6) With regard to tubercular disease of the ear in children, we must aim at prevention by dealing with the milk supply. When the disease has occurred operation holds out little hope. (7) Convalescent homes should receive certain cases of chronic nasal catarrh, certain cases after operation for enlarged tonsils and adenoids, cases of sub-acute middle-ear suppuration, in which fresh air, etc., might obviate the necessity of operation. Certain cases after operation on the ear—especially those for tubercular disease—should also be admitted to convalescent homes. (8) Special classes or schools should be instituted for children who are hard of hearing, but are not sufficiently deaf to require admission to deaf-mute schools. (9) Deaf-mutes should enter school at the age of three or four years, and not at seven years as at present, and should remain until they have learnt a trade. (10) There is room for the extension of the excellent lip-reading classes at present provided by the educational authorities in Edinburgh.

J. ALLAN.

Gastric symptoms due to irritation in the external ear (*Journ. Amer. Med. Assoc.*, 1917, LVIII, p. 828).—M. Goldsmith draws attention to the fact that persistent vomiting and other gastric symptoms which do not correspond with the usual types of digestive disease may sometimes be due to wax or a foreign body in the external auditory meatus. A girl, aged 12 years, was cured by the removal of a glass bead covered with cerumen; a boy, aged 14 years, by the removal of a pea-nut; and a girl, aged 18 years, by the removal of the broken end of an apple-twig. The anatomical explanation of these cases is as follows: Where the pneumogastric nerve passes through the jugular foramen, there occurs an enlargement known as the ganglion of the root. To this is attached the accessory portion of the spinal accessory nerve. From the ganglion spring two branches, the meningeal and auricular. The latter, or nerve of Arnold, is joined by a filament from the glossopharyngeal. It then passes through the temporal bone, and emerges at the auricular fissure between the mastoid process and external auditory meatus, and divides into two branches. One communicates with the posterior auricular (branch of the facial), while the other branch supplies the skin at the back part of the auricle and the posterior inferior portion of the external meatus. Irritation of this branch of the vagus, or nerve of Arnold, is the explanation of vomiting having its origin in the external ear.

T. R. WHIPHAM.

Acute otitis media (*Lancet*, 1916, I, p. 1126).—E. D. D. Davis, at a meeting of the Royal Society of Medicine, Section of Otology, described a fatal case of double acute otitis media, complicated by ulcerative endo-

carditis. The patient, a youth, aged 16 years, had discharge from both ears following upon influenza. There were numerous indications in the mastoid and body generally of a septic condition, and operation failed to save him.

J. ALLAN.

Enterococcal otitis media (*'Arch. Españ. de Ped.,'* 1917, I, p. 44).—**C. J. Encina**.—A boy, aged 4 years, who had recently had an attack of enterocolitis, developed pain in the right ear, and became very restless and feverish. The tympanic membrane was found to be intensely red and was incised. The pus was found to contain the enterococcus in pure culture. Complete recovery took place within a month. Encina attributes the otitis to spread of infection from the alimentary canal by the Eustachian tube.

J. D. ROLLESTON.

Hearing tests from a practical standpoint (*'Boston Med. and Surg. Journ.,'* 1917, CLXXVII, p. 213).—**G. L. Richards**.—Speaking of the time-consuming ordeal of elaborate tests, the author seeks a practical, scientific plan which shall be both time-saving and accurate. He does not appear to have succeeded. His remarks on hearing tests in children are, however, good: They are often unwilling or unable to answer correctly, and they tire easily. Prolonged examinations are unsatisfactory. Questions answerable by a movement, such as a nod of the head, are therefore best. He rightly notes that many children cannot be accurately tested until the third or fourth year in school.

MACLEOD YEARSLEY.

Auricular education of deaf children (*'Med. Record,'* 1917, XCII, p. 241).—**J. Dutton Wright** points out that the co-operation of physicians is needed in order that advantage may be taken of unrealised possibilities of educating slight powers of hearing remaining in the cases of many deaf children attending special schools for the deaf. Since the intensity with which a sound affects the ear varies with the square of the distance, it is necessary to awaken the partially deaf child's sense of sound by speaking at about one inch from the ear. Teaching must be accomplished by first awakening attention to sounds, then by patiently training the brain to associate ideas with words. The use of the unaided voice gives better results than the employment of artificial aids. As regards the standard for the amount of hearing power that must be possessed by the deaf child to respond satisfactorily to educational auricular training, such islands of hearing as remain must be located within the range of the speaking voice. For others lip-reading, etc., are alone available. The author's own standard of amount is the child's ability to learn to distinguish between five unlike vowel sounds shouted one inch from his ear.

MACLEOD YEARSLEY.

Complications of acute middle-ear suppuration and the difficulties in making a diagnosis in certain cases (*'Med. Record,'* 1917, XCI, p. 1127).—**Gorham Bacon**.—A valuable paper to the general practitioner. In the continuation of high temperature after incision of the drumhead, a warning is given as to the possibility of pneumonia. An interesting case is cited in which pyelitis simulated sigmoid thrombosis in a girl, aged 7 months. Another condition easily mistaken for sinus thrombosis is erysipelas. Similarly, sinus thrombosis must not be mistaken for erysipelas.

MACLEOD YEARSLEY.

Latent lateral sinus tuberculosis (*'Lancet,'* 1916, I, p. 1126).—**Sydney Scott**, at a meeting of the Royal Society of Medicine, Section of Otology, showed a case of latent tuberculosis of the lateral sinus secondary to chronic suppurating otitis media, with a histological specimen of the sinus contents. At 5 years of age the child was operated upon by a simple procedure for the removal of a mastoid abscess. A sinus persisted, she had attacks of headache, and the tympanic membrane was obscured by pale granulations deep in the meatus. Schwartz's operation resulted in a cure, as there was now no sign of disease a year after the operation.

J. ALLAN.

Some conditions leading to incorrect diagnosis of adenoids in children (*'Boston Med. and Surg. Journ.,'* 1917, CLXXVI, p. 875).—**V. Dabney**.—Examination of the tympanic membrane is insisted upon in the diagnosis of adenoids, "though inspection of" the nose and throat "will, of course, frequently reveal its presence" (!). The conditions liable to be mistaken for adenoids are, according to the writer, an unwise indulgence of "soda crackers"; extension of the vomer back to the pharyngeal wall; polypi; fibromata; fibrosarcoma; intumescence of the turbinates due to distension of the bladder; anaphylaxis due to ingestion of eggs and milk; blind reliance on digital examination and posterior rhinoscopy.

MACLEOD YEARSLEY.

Treatment of adenoids in infants (*'Thèses de Paris,'* 1916-17, No. 69).—**E. Feldstein**.—The frequency of adenoids in infancy varies with different writers. Chaumier in a total of 232 cases found 26 in children under 1 year. Cuvillier in a total of 425 found 97 in children aged from 0 to 5 years. Guéneall estimates that about one-tenth of all the cases are found in infancy. Five different types are described: (1) Respiratory; (2) digestive; (3) infective; (4) type associated with reflex complications at a distance, *e.g.* paroxysmal cough and spasm of the glottis; (5) type associated with aural disturbance. The proper treatment of adenoids in infancy consists in removal either with forceps or Moure's adenotome. Medical treatment, either local or general, should be reserved for the following cases: (1) When the adenoids are infected (acute or subacute, simple or complicated adenoiditis); (2) as an adjuvant to surgical treatment to render the nose and pharynx aseptic before and after operation; (3) if there are contra-indications to operation or if the parents refuse it (*cf.* BRITISH JOURNAL OF CHILDREN'S DISEASES, X, p. 134).

J. D. ROLLESTON.

Sinusitis in children (*'New York Med. Journ.,'* 1917, CVI, p. 550).—**K. A. Phelps** states that the condition has only recently attracted any attention. Authorities differ much as to its frequency. The writer states that though not very frequent, it is of great importance. The sinuses are more variable in size and shape than any other structure of the body. The maxillary sinus and the ethmoidal cells are both present at birth, but they are not fully developed till the age of 16 years. The sphenoidal sinus is not present at birth, but can be made out at the age of 3 years. The causes of sinusitis were coryza, infectious diseases such as scarlet fever, measles, etc.; it may follow tonsillectomy or the removal of a tooth. Acute sinusitis is more frequent than chronic; it is often accompanied by cellulitis in the orbit or eyelids and sometimes by otitis media. Acute cases may clear up spontaneously. Chronic sinusitis may act as a focus of infection for coryza,

headaches, tonsillitis, bronchitis, etc., and also joint metastases. The most common symptoms are nasal discharge, headaches, and nasal obstruction. The treatment is the same as in the adult.

J. PORTER PARKINSON.

Myxosarcoma of the soft palate ('*Edin. Med. Journ.*,' 1917, II, p. 24).

—D. M. Greig reports a case in a boy, aged 13 years. He was a healthy lad, well nourished, well formed, and of good colour; family history satisfactory; no record of growths or congenital abnormalities. Four years previously it was noticed that he was speaking somewhat thickly, due to a growth on the soft palate, which was removed under local anæsthesia. Recurrence took place a year after the first operation, and it was then more thoroughly removed and the base of the tumour cauterised frequently thereafter. Recurrence again took place. On inspection the entire soft palate, the uvula and the posterior half of the hard palate were seen to be hidden by a flattened papillomatous-looking growth split up into many lobules and obviously attached by a broad base. There was no induration, the general surface of the tumour was smooth, no individual lobule projecting. The growth was freely removed. The pathological report stated: "The lesion, microscopically, has the structure of myxosarcoma. The papillomatous surface has probably resulted from the tendency of the tumour to assume a lobulated form. The myxomatous element explains the peculiar translucent, bulbous appearance of the surface processes." The boy had an easy and rapid convalescence, though, of course, he at once developed and maintained a nasal intonation. He remained free of any trouble for nine months, when there was a small recurrence on the right side. This small recurrence was freely excised, and he has had no trouble since.

J. ALLAN.

The tonsil question in children ('*Annals of Otolaryngology*,' 1917, XXVI, p. 129).—G. W. Boot gives the following rules in performing tonsillectomy in children: (1) Operate only for definite disease. (2) Be sure the condition of the tonsil is the cause of the disease. (3) Always do a urinalysis before operating. (4) Always inquire for a possible history of bleeding. (5) If not certain, test the coagulability of the blood. (6) Don't push the anæsthetic to the abolition of the laryngeal reflex. (7) Don't be slow in operating. (8) Don't destroy a functioning organ unless the gain more than offsets the loss. (9) The younger the patient the more carefully the need of tonsillectomy should be established.

MACLEOD YEARSLEY.

The removal of the tonsil as a prophylactic measure ('*New York State Med. Journ.*,' 1916, XVI, p. 586).—H. H. Forbes, though not advocating the removal of every tonsil in every patient, maintains that all tonsils where a disease condition is in doubt, should be removed, and that the procedure, far from being harmful, is a long step in advance in prophylaxis and preventative medicine.

J. ALLAN.

The tonsils and rheumatism ('*Med. Record*,' 1917, XCII, p. 364).—In discussing the relations of rheumatism and the tonsils, A. Bardes points out that there are three stages in life when the throat is especially assailable: infancy, adolescence, and middle age; and these are the periods when rheumatism is most prevalent. The most dangerous period is between 13 and 18 years. Rheumatism is a true pyæmia, as shown by the symptoms, and the differences between rheumatic fever and chronic rheumatism are those of degree rather than kind. Tonsil enucleation is advocated.

MACLEOD YEARSLEY.

Immediate tonsillectomy in incipient acute endocarditis of tonsillar origin (*Arch. of Ped.*, 1917, xxxiv, p. 118).—E. C. Fleischer records four cases of acute endocarditis in children, aged from 9 months to 6 years, in whom tonsillectomy was performed for subacute tonsillitis with rapid subsidence of the symptoms. Fleischer supports the treatment by the following considerations: (1) Acute endocarditis is always a secondary infection. (2) A very large number of these cases are due to a primary focus in diseased tonsils. J. D. ROLLESTON.

Hæmorrhage following tonsillectomy (*Boston Med. and Surg. Journ.*, 1917, clxxvii, p. 594).—H. H. Amsden.—A boy, aged 9 years, had tonsillectomy performed on Monday and remained apparently all right till the following Saturday, when he began to bleed freely. Inspection of the throat under ether showed a large button-hole of the right anterior pillar from the upper angle of which the bleeding occurred, which was easily controlled by a catgut stitch. There was much shock, necessitating subcutaneous injection of 500 c.c. salt solution. The late occurrence of the hæmorrhage was obviously due to contracture of the tissues in healing, thus allowing the upper angle of the wound to open. J. D. ROLLESTON.

Some hints on the tonsil-adenoid operation based on an experience of 5000 cases (*Practitioner*, 1917, xcix, p. 109).—Dan McKenzie.—One of the most liberal and soundly-argued papers yet published on this well-worn subject. It is one that should be read by all, specialists and general practitioners alike, and, having said this, it is best to give merely headings than to spoil future perusal by extracts or quotations. The author enunciates the clinical rule—*in middle-ear suppuration always examine for adenoids*. But in acute suppuration wait until the acute ear symptoms have subsided. Before tonsil and adenoid operations, avoid mishaps from the mouth being a source of septic infection. Diminish oral sepsis before operation and ear infection after operation is practically abolished. There is no risk of injury to the constitution by the entire removal of tonsils; they are merely nude lymphatic glands. In children *never dissect out the tonsils*, use a guillotine. In the adult the reverse is the case, the guillotine being unreliable. Severe tonsillar hæmorrhage is seldom either reactionary or secondary; *it is primary*. Before the patient leaves the table it should be made certain that bleeding has stopped. Back in bed, never allow the patient to lie on the back; let the position be semi-prone. Excellent directions for the treatment of serious hæmorrhage are given, and the author remarks that calcium chloride is a favourite internal remedy—"it probably acts by comforting the surgeon's mind." The vast majority of cases of deafness from adenoids are merely due to tubal congestion and can be permanently cured by judicious inflation. Owing to the presence of adenoids in Rosenmüller's fossæ, it may be laid down as a clinical rule that no case of deafness has been properly examined unless the naso-pharyngoscope has been employed. Adenoids seldom recur when thoroughly removed. There is reason to believe that seemingly trivial attacks of middle-ear catarrh in children, manifested by nocturnal earache, frequently lead to serious irremediable deafness later on in life. This remark occurs early in the paper; the reviewer wishes to lay stress upon it by placing it last; it is what he has been endeavouring to inculcate for several years past. MACLEOD YEARSLEY.

Relation of tonsillar and naso-pharyngeal infections to general systemic disorders (*Bull. Johns Hopkins Hosp.*, 1917, xxviii, p. 1).—

S. J. Crowe, S. S. Watkins, and A. S. Rothholz, in a paper based on 1000 tonsillectomies, give the following indications and contra-indications for tonsillectomy. Indications for tonsillectomy: (1) Local disorders in the upper-air passages, *e. g.* hyperplasia of the tonsils, frequent tonsillitis or quinsy, chronic laryngitis or bronchitis, chronic catarrhal otitis or suppurative otitis media, chronic diphtheria carriers, reflex neuroses in children (including asthma), paroxysmal nocturnal attacks of coughing, enuresis and convulsive seizures, new growth. (2) Local trouble in the cervical glands, including both simple hyperplasia and tuberculous adenitis. (3) General systemic disorders secondary to a focus of infection in the tonsils, *e. g.* infectious arthritis, myalgia or myositis, the early stages of a glomerato-nephritis, and various nervous symptoms designated as neurasthenia. (4) As a prophylactic measure in chorea, acute rheumatic fever, and heart lesions. Contra-indications for tonsillectomy: (1) A tonsillectomy should never be performed during the acute stage; it is best to wait at least three weeks until after all symptoms have subsided. Several cases of cerebral (usually temporary lobe) abscess have been reported following performance of a tonsillectomy when the tonsils were inflamed. (2) Diabetes. (3) Chronic deforming types of arthritis. (4) Acute stage of chorea, acute rheumatic fever or endocarditis. (5) As a general rule, the tonsils should not be removed in children up to fifteen years of age solely because they are enlarged or detritus is seen in the crypts. Removal of adenoids, regulation of the digestive system, and general hygienic measures will often prove sufficient.

J. D. ROLLESTON.

Congenital laryngeal stridor in the new-born due to an anomaly of the muscles of the larynx; autopsy (*'Arch. de Méd. des Enf.'*, 1917, xx, p. 530).—**G. Variot** reports a case in a child who died of bronchopneumonia at the age of 9 weeks, after having had laryngeal stridor since birth. The autopsy showed that the vestibule of the larynx had a normal shape, and that the ary-epiglottic folds showed no anomaly. On the other hand, there was an absence of the right posterior crico-arytenoid muscle with flattening of the vocal cords more marked on the right. The stridor was, therefore, related to that sometimes observed in paralysis of the vocal cords.

J. D. ROLLESTON.

Obstructive and adhesive panlaryngitis after tracheotomy (*'La med. de los niños'*, 1917, xviii, p. 65).—**M. Vargas**.—The patient was a boy, aged $2\frac{1}{2}$ years, who had been tracheotomised eight months before, and had never been able to do without the tube. On opening up the wound under an anæsthetic, Vargas found the interior of the larynx completely filled by inflammatory tissue which had formed adhesions with the posterior surface of the epiglottis and drawn it down to the laryngeal vestibule by cicatricial contraction. Vargas cleaned the vocal cords with the point of the knife, passed a grooved director by circular movements through the larynx so as to re-establish an opening, followed by a leaden catheter up to the mouth, and left in a rubber tube extending from the tracheal wound to the mouth for twenty days. The tube was then removed, and the child could then breathe freely through the mouth and speak. There is no previous case on record of the epiglottis becoming adherent to the vestibule and becoming attached to a mass of cicatricial tissue filling the larynx. Vargas discusses other obstructive processes in the larynx, both congenital

and acquired, including Riddell's case of complete occlusion of the trachea, due to injury to the cricoid cartilage after intubation and tracheotomy (*v. BRITISH JOURNAL OF CHILDREN'S DISEASES*, 1914, xi, p. 476).

J. D. ROLLESTON.

Correspondence.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—We have the honour to transmit to you a Statement adopted by the Royal College of Physicians of Edinburgh dealing with the question of the establishment of a Ministry of Health.

The College was led to take up the consideration of this matter by the attention which has been recently given to it, and by the general interest aroused by its discussion in the public press.

The opening paragraphs of the Statement explain the position the College occupies under Royal Charter, and we would emphasise the fact that under the privileges conferred by the Charter it is the duty of the College to consider "any matters affecting the general interests of the medical profession and the public."

Acting on this privilege the College has considered the question of the establishment of a Ministry of Health, and has accepted the general proposition that it would be to the advantage of the public health were the various existing health agencies co-ordinated and brought under the supervision, control, and initiative of a Board of Health, constituted on the lines suggested in the Statement, and presided over by a Minister of State.

The only aspect of the question which leads to a divergence of view is as to the desirability of proceeding with a scheme of such magnitude at this strenuous and anxious time in the Nation's history, when the medical forces of the country are largely disorganised. In the circumstances the prevailing opinion of the College is that the establishment of a Ministry of Health ought to be postponed until after the war.

We have the honour to be

Your most obedient Servants,

WILLIAM RUSSELL, M.D., *President*.

A. DINGWALL-FORDYCE, M.D., *Secretary*.

ROYAL COLLEGE OF PHYSICIANS,

EDINBURGH;

December 17th, 1917.

STATEMENT BY THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH
REGARDING THE PROPOSAL TO INSTITUTE A MINISTRY OF HEALTH.

The Royal College of Physicians of Edinburgh was erected by Royal Charter granted by His Majesty King Charles the Second, 29th November 1681, and incorporated anew by Royal Charter granted by Her Majesty Queen Victoria, 16th August 1861.

The Royal College has been, and continues to be, largely concerned with matters affecting the Health of the nation. It has taken considerable part

in developing medical science and practice. It is therefore particularly interested in all proposals which have for their aim the erection of a State Department of Health.

The Fellows of the College have given careful consideration to the subject. The statement which follows is the outcome of deliberations, which had regard to the great questions of Health and the urgent need of their recognition and effective handling by the State. The standpoint of the College is frankly medical, not political or departmental.

The administration of Health measures has in the past been developed in connection with a number of Government Departments, such as the Local Government Board, Home Office, Board of Education, Insurance Commission.

Each of the several Departments has worked within the limits of certain Acts of the Legislature dealing with definite subjects and conferring definite powers.

The Health of the Community has received benefit from the work of the Departments; but the operations of the Departments have not attained that comprehensive measure of success which the extent and gravity of the Health problem demand.

As regards Health questions, the sphere of the several Departments is limited, and, with increasing legislation, the overlapping which inevitably follows from their separation becomes steadily aggravated.

A fundamental weakness lies in the fact that in none of the Departments concerned is the control vested in a Minister appointed primarily to deal with Health problems.

From this division of interest and responsibility departmental difficulties are apt to arise; policy in regard to matters pertaining to Health tends to become subject to considerations of departmental jurisdiction; and the essential interest of Health questions is liable to be obscured.

Under the restrictions of the present system it has been impossible to evolve concerted means for dealing with the complex and ever widening problems of National Health. Not until these restrictions are removed will it be possible to attain effective and adequate machinery.

What is required is the creation of a Ministry which shall concern itself with Health matters pure and simple, and to whose jurisdiction shall be transferred from other Departments the operations of all existing enactments in so far as they deal with Health.

This opens up another aspect of the question, namely, the immense extent of the issues involved.

Existing Acts deal only with sections and fragments of the subject. A multitude of conditions affecting Health are not included in the purview of the Acts, and have hitherto been left untouched.

The Minister of Health must handle the whole problem. He must be concerned not only with questions already dealt with by the Legislature, such as Infectious Diseases, Infant Welfare, etc., but also with fresh questions arising from time to time, *e.g.* conditions causing or affecting forms of sickness and disease not yet included within the operation of Health Acts.

Such matters are frequently brought to light in the work of the medical profession. Beyond the treatment of individual cases by medical practitioners there are large questions concerning conditions to which sickness is due. These are certainly matters for a Ministry of Health.

To enable the Ministry to carry out its wide and highly complex functions, a Board of Health should be constituted, and its members selected in such

a way as to ensure that the attention of the Ministry of Health would be directed to all matters affecting Health.

The Royal College of Physicians of Edinburgh is, therefore, of opinion that it is essential, in the public interest, that a Government Department should be erected to deal exclusively with Health.

The Royal College suggests:

- I. That the Department should consist of the Minister and a Board of Health, of which the Minister should be Chairman and whose Members should be elected on the ground of experience and interest in matters pertaining to Health.
- II. That the Purposes of the Department should be—
 1. To administer the Health Acts.
 2. To devise executive measures for dealing with Health problems not hitherto defined by legislative measures.
 3. To institute inquiries with a view to introduce measures for improving conditions affecting Health.
 4. To develop facilities for investigation of problems in Health and Disease as they may arise.
- III. That the Board should include three Groups of Members—
 1. Administrative officials.
 2. Laymen with wide experience of Health problems, or in the administration of hospitals and other health agencies, official or voluntary.
 3. Medical members who have had experience in—
 - (a) Public Health Service.
 - (b) General Practice.
 - (c) Special Clinical Departments, including Industrial Medicine.
 - (d) Medical Research.
 - (e) Medical Statistics.

In name and by Authority of the College,

WILLIAM RUSSELL, M.D., *President.*

A. DINGWALL-FORDYCE, M.D., *Secretary.*

EDINBURGH, December 6th, 1917.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—In a paper of mine on "A Case of Congenital Urticaria Pigmentosa with Remarks on Ætiology" (BRITISH JOURNAL OF CHILDREN'S DISEASES, 1916, XIII, pp. 301), I suggested that a syphilitic origin might be a point to consider. Since then, however, I have had another case of urticaria pigmentosa (N. 5092, 1917) in a male infant, aged 5 months, and which started at the age of two months. There was no suspicion of syphilis in either the mother or the child, and the Wassermann was negative in both.

Yours truly,

GEORGE PERNET, M.D.

Postscript.—In my paper on "Acquired Syphilis in Infants, with Remarks on Crèches" (BRITISH JOURNAL OF CHILDREN'S DISEASES, 1917, XIV, pp. 168-171), fourth line from bottom, p. 171, read "counsel" not "council."

Reviews.

ARCHIVOS ESPAÑOLES DE PEDIATRIA. REVISTA MENSUAL. REDACCIÓN Y ADMINISTRACIÓN. Jardines 16, Madrid. Annual subscription: Spain and Latin America, 15 pesetas; other countries, 18 pesetas.

THE lively interest taken in the study of children's diseases in Spain is shown by the fact that that country now possesses three journals devoted to pædiatrics—'La Medicina de los Niños,' now in its nineteenth year; 'La Pediatría Española,' founded in 1911; and 'Archivos Españoles de Pediatría,' which first appeared in the November of last year. The first number of this new review contains a paper by Dr. Martínez Vargas on the throat and skin in scarlet fever, an article on Schlatter's disease by Dr. Lopez Duran with an account of fourteen original cases, illustrated by photographs and skiagrams, and a clinical note by Dr. C. Jimenez Encina on a case of acute otitis media in which the enterococcus was the only organism found. In the December number Dr. José S. Covisa discusses some ætiological problems and the treatment of congenital syphilis, Dr. A. Romeo Lozona writes on migratory pneumonia in children, and Dr. Lafora contributes a clinical note on a case of diabetes insipidus and Fröhlich's syndrome in a child. In addition to reviews and society intelligence the Journal contains an abstract department, a valuable feature of which is the *résumé* given of the current number of the Spanish and foreign pædiatric journals. We wish our new-born contemporary a long and successful career.

J. D. R.

ACUTE POLIOMYELITIS. By GEORGE DRAPER, M.D., Associate in Medicine, College of Physicians and Surgeons, Columbia University; Associate Attending Physician Presbyterian Hospital, New York City. With a Foreword by SIMON FLEXNER. 1917. Pp. 149; 19 illustrations. London: William Heinemann. Price 7s. 6d. net.

THE conception of acute poliomyelitis, or perhaps better, polio-encephalomyelitis, as an acute infective disease, due to a specific virus, affecting the body as a whole, but having a special selective action on the nervous system and giving rise to a variety of symptoms dependent upon the portion of the nervous system more particularly affected, is a modern one, and as yet has not received the amount of attention it should. In the book before us this conception is detailed. In addition, the work may be taken as a practical guide to the diagnosis, care, and specific treatment of epidemic poliomyelitis.

Dr. Draper is already well known to students of poliomyelitis as one of the authors of the Rockefeller monograph, 'A Clinical Study of Acute Poliomyelitis,' by F. W. Peabody, G. Draper, and A. R. Dochez, which appeared in 1912, and since that publication has seen much of the large material presented by the epidemic of poliomyelitis which swept over the Eastern United States in the summer and autumn of 1916.

The book is divided into eleven chapters. The first gives a short account

of the history of the disease, the following chapters dealing with ætiology, epidemiology, experimental work (including the distribution of the virus in the tissues, problems of immunity, the nature of the virus and its cultural characters), and pathology, give readable, short, and precise statements upon our present knowledge of these subjects. The importance of healthy carriers and of abortive cases receives due notice. Chapter VI is concerned with the "classification of types of poliomyelitis." Draper rejects Wickman's classification in terms of paralyses as "quite inadequate," and suggests one dependent upon the general systemic phase of the disease. "Three distinct groups have been separated. In the first two groups there develops a picture of general systemic infection from which the child appears to recover completely or in part, then to receive a second blow directly upon the cerebro-spinal tract. The first series, called the 'dromedary' group, from the temperature curve, shows clearly two distinct periods of illness with an interval of well-being. In the second series, called the 'straggling' group, this period of comparative well-being is not present, but there is a sustained course of indisposition of varying intensity. In the third, or 'sudden onset' group, all the signs point from the start to meningeal and nervous tissue involvement. A striking feature of the whole series is that the second portion of the first two groups is very similar to whole course of the sudden onset group." 50-80 per cent. of cases in any epidemic are, according to Draper, *abortive*, and never develop paralysis, but only by one or more of the following—fever, sore throat, upper respiratory tract involvement, malaise, or gastro-intestinal—give evidence of the infection. In Chapter VII the symptoms (prodromata, onset, course, pain, spine-sign, reflexes, psychic, mucous membranes, digestive tract) are discussed. Chapter VIII deals with the clinical pathology of the blood and spinal fluid, Chapter IX with the paralyses, Chapter X with the prognosis, and Chapter XI with treatment. As an appendix to the last chapter is given a series of cases treated by serum. A list of fifty-three references to literature and an index complete the work, which may be recommended to all interested in this wide-spread and often misdiagnosed disease.

E. G. F.

PROBLEMS OF SUBNORMALITY. By J. E. WALLACE WALLIN, Director of the Psycho-educational Clinic, Board of Education, St. Louis. 1917. Pp. 285. New York: World Book Co.

THIS volume is concerned with the problems of the feeble-minded, the group between normal children on the one hand and imbeciles on the other. It is divided essentially into four parts, dealing respectively with: The exact diagnosis of the presence and degree of feeble-mindedness, the differential modes of education needed for such children, the questions of after-care, and the use to which the feeble-minded can be put, and the social and preventive problems concerned. In addition, there are chapters on the general question of the changing attitude towards the feeble-minded, epilepsy, State provision for defective children, and the hygiene of eugenic generation.

The most valuable portions of the book would seem to be the first section, which gives an interestingly written historical review of the development of our knowledge on the subject; and the second one, dealing with the problems of psychological diagnosis. Wallin rightly insists that this diagnosis and exact grading can only be made by specially trained experts.

"A few years ago the assumption was made that practically any intelligent person could determine whether or not a child or adult was feeble-minded by a few minutes' examination by means of the Binet-Simon scale, with the aid of certain arbitrary quantitative standards of mental retardation," whereas "it is not probable that it (this assumption) is now entertained by any considerable number of clinical psychologists." He gives a detailed and convincing criticism of the fallacies of the Binet-Simon scale, though he omits to mention what in the reviewer's opinion is the chief one—namely, that it makes no allowance for the varying affective, and often unconscious, attitude of different children towards the individual tasks comprising the examination. Wallin's own methods of examination lead him to define feeble-mindedness in a much narrower sense than is usually done, particularly in its upward direction, and he would not class any child as being feeble-minded, or as needing special education, unless there was reason to conclude that in the future he would not be able to earn his living independently.

The chapter on epilepsy is conventionally written, and the only contribution it makes is the description given of the characteristic reactions of the epileptic child to various intelligence tests. Most noteworthy is the omission of any account of Pierce Clark's recent remarkable work on the psychology of epilepsy. Indeed, one notes throughout an unfortunate failure to take advantage of the medical work done in the allied field of the neuroses.

Wallin had an unusually rich experience of most of the problems directly concerning feeble-minded children, and his book contains a mass of detailed and original observations and statistics. For those working in this field the book will be of very great value, but it is too diffusely written and too voluminous to be of much service to non-specialists. E. J.

ADENOIDS AND TONSILS. By ALGERNON COOLIDGE, M.D., Cambridge. Harvard University Press, 1916. Pp. 46. Price 2s. 6d. net.

THIS brochure belongs to a series of "Harvard Health Talks," which presents the substance of the public lectures delivered at the Medical School of Harvard University. The reason for such lectures and for such little books as these is a very commendable one. The points concerning tonsils and adenoids are fairly clearly put, and there is only one point at which we join issue with the author. The principal symptom of adenoids, he says, is disturbance to easy breathing through the nose in children. We would rather consider the frequent occurrence of colds in the head to be the most common (and most important) symptom. M. Y.

UNIVERSITY OF IOWA MONOGRAPHS: STUDIES IN MEDICINE. Edited by Prof. H. A. ALBERT, M.D. Vol. i, No. 10. September, 1917.

THIS collection of thirteen papers, all previously published, shows the activity of the medical faculty of the University, especially as regards the problems of metabolism and bacteriology. Dr. Louis Baumann and Prof. Campbell Howard, in a paper on "The Mineral Metabolism of Experimental Scurvy in the Guinea-pig, Induced by a Diet Confined to Oats and Water," determined the mineral metabolism of the normal guinea-pig, a subject on which apparently little was previously known, and then found that in experimental scurvy the mineral metabolism is profoundly affected. Dr.

Beifeld, of the Department of Pædiatrics, University of Michigan, contributes a *résumé* on infectious diseases with 300 references, and points out that the chief advances made during the last few years are the wider use of the so-called aseptic technique in the handling of patients, based on Grancher's views, and a tendency to attempt active immunisation as a means of either preventing these diseases or of forestalling their manifestations in a severe form.

H. D. R.

THE PRESIDENT OF THE LOCAL GOVERNMENT BOARD AND CHILDREN'S YEAR.

The President of the National Sunday School Union has received the following letter from the President of the Local Government Board :

"The movement which you are initiating to make 1918 a 'Children's Year' is one that commands my strongest sympathy. As head of the Department mainly responsible for the health of the Nation, I feel a special interest in all proposals which have for their object the promotion of the health and welfare of the rising generation, and the stimulation of public interest in a subject of such vital importance to the Empire. The amount of work undertaken on behalf of the Nation's Children by Local Authorities and voluntary organisations, assisted by State grants, is constantly increasing, and as public opinion becomes further enlightened as to the needs of the present, and the possibilities of the future, it will demand a great expansion of that work. The enthusiasm which our Health Authorities are throwing into this work augurs well for the future. I am confident that they will not be found wanting, and I am sure that I may speak for them, as well as for myself, in welcoming your co-operation and wishing you success in the campaign which you have undertaken."

W. HAYES FISHER.

AMERICA AND CHILDREN'S YEAR.

The President of the National Sunday School Union has been authoritatively informed that America, our Ally in the world-struggle for honour and freedom, has decided also to be our Ally in the unique effort which is being made this year for the Welfare of the Young. "Children's Year" will start throughout the United States of America on April 6th, the Anniversary of the Declaration of War, and, among other schemes for the physical, intellectual, and spiritual betterment of the young, it will be signalised by a highly scientific endeavour to reduce infantile mortality. It is estimated that at least 100,000 infant lives will be saved in the U.S.A. alone during "Children's Year."